This memorandum was prepared by URS at the request of the U.S. Environmental Protection Agency (EPA) and provides an update of cost estimates prepared for the Feasibility Study (FS) for the Coeur d'Alene Basin Operable Unit 3 (OU3). URS has estimated updated costs for the selected remedies for human health and the Spokane River (as presented in the Record of Decision (ROD)) and the comprehensive ecological remedy (Ecological Alternative 3, as presented in FS Part 3, plus additional areas selected in the ROD).

Costs have been escalated from December 2000¹ to December 2006 using the 20-city average of the construction cost index (CCI) from Engineering News Record (ENR). Direct and indirect capital costs and operations and maintenance (O&M) costs have been escalated using the same factor. The CCI for December 2000 was 6,283; the CCI for December 2006 was 7,888. Thus, the escalation factor is 1.26. All costs have been escalated using this factor except costs for cleanup of yard soil, rights-of-way, commercial properties, and common areas. As described below, current actual costs were used to estimate future costs for cleanup of these properties.

Table 1 shows the estimated escalated costs with Pine Creek cleanup costs excluded. Estimated escalated costs for Pine Creek are shown in a separate column in Table 1.

Human Health Remedy

For the human health remedy, ROD Tables 12.1-11 through 12.1-16 have been updated. Table 1 summarizes the escalated estimated cost of the human health remedy. Costs for residences that have already been cleaned up are not included.

Costs associated with Pine Creek are not always identified separately in the human health FS (FS Part 2) and the ROD. Pine Creek communities are generally included in the Kingston subarea in the FS Part 2. In the following paragraphs, the methods used to estimate the numbers of residences in Pine Creek requiring cleanup for each of the remedy components are described. As shown in FS Part 2, Table A-1, the estimated number of residences in Pine Creek (30) is about 0.6% of the estimated total number of residences in the combined Upper and Lower Basins (5,156). It was assumed that costs for the lead health intervention program and the institutional controls program, together referred to as intervention and information (I&I), would not be affected by the exclusion of Pine Creek.

For yard soil, rights-of-way, commercial properties, and common areas, cleanup costs have been updated based on actual average cleanup costs per property and the current estimate of the remaining number of properties to be cleaned up. These costs represent current costs and have not been escalated. The number of Pine Creek properties was estimated as 0.6% of the total estimated remaining number of properties to be cleaned up (2,744), or 16. Costs for repository construction (including hauling of contaminated soil) and O&M, relocation, drainage upgrades,

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¹ The FS costs were estimated using year 2000 costs (FS Part 2, Appendix F, page F-1 and FS Part 3, Section 4.2.4.7.4) and were not escalated in the ROD.

cleanup of recontamination, and I&I programs are based on the year 2000 estimate and have been escalated. In addition, the costs for repository construction (including hauling of contaminated soil) and O&M have been increased to reflect an increase in the estimated volume of soil that will be disposed of in repositories from 127,226 cubic yards to 572,446 cubic yards. These repository costs have been increased by a factor equal to 4.5 (572,446 divided by 127,226). Escalated estimated costs for yard soil, rights-of-way, commercial properties, and common areas, with Pine Creek excluded, are shown in Table 2.

Escalated estimated costs for cleanup of recreational areas are summarized in Table 3. Because all of the recreational areas are located in the Lower Basin, these costs have not been adjusted for Pine Creek.

For house dust, as described above for yard soil, the number of Pine Creek residences requiring cleanup is estimated to be 3% of the total number of residences requiring cleanup for house dust in the Kingston subarea. The total number of residences requiring cleanup for house dust in the Kingston subarea is 503, and the estimated number of Pine Creek residences requiring cleanup is 16. Escalated estimated costs for house dust, with Pine Creek excluded, are summarized in Table 4.

For drinking water, there is specific information on the numbers of residences needing remedial actions for drinking water in FS Part 2, Table 4-5. There are 2 residences in Pine Creek needing remedial actions for drinking water. Escalated estimated costs for drinking water, with Pine Creek excluded, are summarized in Table 5.

Escalated estimated costs for aquatic food sources remedies are summarized in Table 6. It was assumed that costs for the aquatic food sources remedies would not be affected by the exclusion of Pine Creek.

Ecological Remedy

For the comprehensive ecological remedy, costs have been escalated on a site-by-site basis. Table 1 shows the escalated estimated cost of the comprehensive ecological remedy with costs for Pine Creek excluded. For the Upper Basin, the comprehensive ecological remedy consists of Alternative 3. Escalated estimated costs for the Upper Basin, with costs for Pine Creek excluded, are summarized on a watershed level in Table 7.

For the Upper Basin, the comprehensive ecological remedy consists of Alternative 3 plus additional areas selected in the ROD. This additional areas are:

- Anderson Lake (wetland and lake areas)
- Bare Marsh
- Cave Lake (wetland and lake areas)

• Existing agricultural land for conversion to waterfowl feeding areas

Escalated estimated costs for the Lower Basin are summarized in Table 8.

Site-by-site costs for the Upper Basin are presented for the Upper South Fork, Canyon Creek, Ninemile Creek, Big Creek, Moon Creek, and South Fork watersheds in Tables 9 through 14, respectively.

Spokane River

For the Spokane River, the selected remedy in the ROD identifies a combination of Alternatives 3, 4, and 5. A lower bound and an upper bound estimate were presented in the ROD. The escalated estimated costs for the Spokane River are presented in Table 15. It was assumed the estimated costs are not affected by the exclusion of Pine Creek.

Basinwide Monitoring

Estimated O&M costs are shown, as appropriate, for the various components of the remedy. However, EPA is also implementing a basinwide monitoring program to assess the cumulative effectiveness of the remedy components. The cost of this program is not included in the estimated O&M costs for the various remedy components. The estimated cost for 30 years of basinwide monitoring that is presented in the ROD is \$9 million. The escalated estimated cost for the basinwide monitoring program is shown in Table 1.

Indirect (Non-Construction) Remedy Costs

The estimated remedy costs include direct capital costs (i.e., construction costs), indirect capital costs (i.e., non-construction capital costs and contingency), and O&M costs.

EPA guidance for developing FS cost estimates (EPA 2000) lists elements that may be included under non-construction costs and provides typical cost ranges of these elements as percentages of the direct capital cost. The low end of the range typically corresponds to projects with direct capital costs exceeding \$10 million, and the high end of the range typically corresponds to projects with direct capital costs less than \$100 thousand. Typical non-construction cost ranges are:

• Project management: 5% to 10%

• Remedial design: 6% to 20%

• Construction management: 6% to 15%

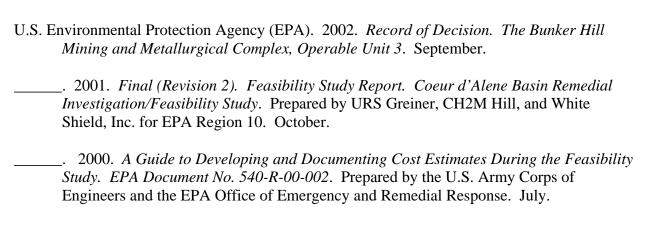
The elements of non-construction costs and typical cost ranges are summarized in Table 16.

Indirect costs included in the estimated costs varied between the remedy components. Indirect capital costs for the ecological and Spokane River alternatives included non-construction costs equal to 30% of direct capital costs and contingency equal to 30% of direct capital costs.²

Non-construction costs for the yard soil and house dust remedies as a percentage of the direct capital cost included 10% for mobilization, 10% for administration, and 30% for contingency. Non-construction costs for the recreational areas remedy as a percentage of the direct capital cost included 15% for mobilization, 10% for administration, and 30% for contingency. Non-construction costs for the drinking water remedy as a percentage of the direct capital cost included 10% for mobilization, 10% for administration, and 10% to 30% for contingency (varied depending on the remedial measure selected).

The indirect costs generally do not include costs that may be incurred by the EPA for administration of the remedy implementation.

References



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² For the ecological and Spokane River alternatives, non-construction costs were defined to also include general requirements (e.g., mobilization and demobilization, temporary facilities, bonds, and insurance). For the Spokane River alternatives, indirect costs were not included for offsite disposal fees.

Table 1. Overall Cost Summary

		Total Estimated Present Worth Cost							
Remedy Component	Alternative	ROD/FS ²	Escalated, excluding Pine Creek	Escalated, Pine Creek					
Human Health Remedy									
Soil (Yard Soil, House Dust, Rights-of-Way, Commercial Properties, Common Use Areas, and Recreation Areas)	S4 and D3	\$89,000,000	\$142,000,000	\$639,000					
Drinking Water	W6	\$2,200,000	\$2,900,000	\$22,000					
Aquatic Food Sources	F3	\$920,000	\$1,100,000	\$0					
Subtotal, Human Health Remedy		\$92,000,000	\$146,000,000	\$660,000					
Ecological Comprehensive Remedy									
Upper Basin	3	\$560,000,000	\$654,000,000	\$53,000,000					
Lower Basin	3 + areas selected in the ROD	\$712,000,000	\$937,000,000	\$0					
Subtotal, Ecological Comprehensive Remedy		\$1,272,000,000	\$1,591,000,000	\$53,000,000					
Spokane River Remedy	Combination of 3, 4, and 5								
Lower Bound		\$4,500,000	\$5,700,000	\$0					
Upper Bound		\$11,000,000	\$13,300,000	\$0					
Basinwide Monitoring		\$9,000,000	\$11,300,000	\$0					
Total ¹		\$1,384,000,000	\$1,762,000,000	\$54,000,000					

¹Totals include upper bound estimate for the Spokane River. Costs are rounded to the nearest one million dollars.

²Costs listed for the human health and Spokane River remedies are from the ROD; costs for ecological remedy are from the FS, Part 3.

Table 2. Estimated Costs for Yard Soil, Rights of Way, Commercial Properties, and Community Areas

Area	Total No. of Properties to Remediate ¹	Total No. of Properties to Remediate Excluding Pine Creek ¹	Estimated Cost per Property ²	Subtotal Estimated Property Remediation Cost	Contingency (30% of Remediation Subtotal)	Administration (10% of Remediation Subtotal)	Total Soil Remediation	Escalated Repository Cost ³	Escalated Relocation Cost ⁴	Escalated Cost for Drainage Upgrades ⁴	Escalated Cost for Recontamination ⁴	Total
Combined Upper and Lower Basins	2,744	2,728	\$ 27,000	\$ 73,656,000	\$ 22,096,800	\$ 7,365,600	\$ 103,118,400	\$ 13,253,556	\$ 4,252,500	\$ 1,220,862	\$ 4,033,836	\$ 125,879,153
Information and Inter	vention ⁵											\$ 2,105,208
Repository O&M ⁶												\$ 713,277
Totals												\$ 128,697,638

¹Total estimated number of properties to remediate and disposal quantity is based on Oct 2006 Terragraphics memo as adjusted by EPA to account for yards remediated through the end of 2006. Number of Pine Creek properties to remediate (16) was estimated as the ratio of the number of residences in Pine Creek (30) to the total estimated number of residences (5,156), as presented in FS Part 2, multiplied by the total estimated number of properties to remediate.

²Based on actual cleanup costs. These costs are current costs and not escalated.

³Includes respository construction and hauling costs as well as O&M (PW(30,7%)) to operate 6 repositories for 10 years. FS estimate for repositories was based on a total disposal quantity of 127,226 CY. Current estimate is 572,446 CY. Repository construction, haul, and O&M costs were extrapolated based on increased volume.

⁴FS/ROD estimated cost escalated from 2000 to December 2006.

⁵Includes 35% of basin-wide Lead Health Intervention Program and 50% of basin-wide Institutional Controls Program for rights of way, commercial properties, and community areas. Total present worth of Lead Health Intervention Program is \$2,880,000 escalated to \$3,629,000, and total present worth of Institutional Controls Program is \$700,000 escalated to \$882,000.

⁶O&M for keeping one Upper Basin and one Lower Basin repositories open for 20 years. Cost was extrapolated based on increase in volume of soil disposed from 127,226 cubic yards to 572,446 cubic yards.

Table 3. Estimated Costs for Recreational Areas

			Escalated
	Escalated	Escalated	Estimated
	Present Worth	Present Worth	Total Present
Recreation Area	Capital Cost	of O&M	Worth Cost
Skeel Gulch Beach	\$221,760	\$20,790	\$242,550
South of Old Mision State Park	\$221,760	\$20,790	\$242,550
Old Mision State Park Boat Launch	\$221,760	\$20,790	\$242,550
Beach in Mission Flats	\$221,760	\$20,790	\$242,550
South of Mission Flats	\$221,760	\$20,790	\$242,550
Mouth of 4th of July Marsh	\$221,760	\$20,790	\$242,550
Bull Run Peak Beach	\$221,760	\$20,790	\$242,550
Rose Lake Access Area (includes East of Rose Lake	·		
and West of Rose Lake)	\$321,048	\$105,210	\$426,258
East of Blackrock Gulch Marsh	\$221,760	\$20,790	\$242,550
Beach Upstream from Quarry	\$221,760	\$20,790	\$242,550
Quarry Beach	\$221,760	\$20,790	\$242,550
RV Park across from Blackrock Gulch	\$221,760	\$20,790	\$242,550
Blackrock Gulch Beach	\$221,760	\$20,790	\$242,550
Beach below Ward Ridge	\$221,760	\$20,790	\$242,550
Near East End of Killarney Lake	\$221,760	\$20,790	\$242,550
Lane Beach	\$221,760	\$20,790	\$242,550
Killarney Lake Boat Launch	\$221,760	\$20,790	\$242,550
Beach near Canal to Killarney Lake	\$221,760	\$20,790	\$242,550
RM 145	\$221,760	\$20,790	\$242,550
Medimont (includes Boat Ramp, West Beach, and Hill			
Camping Area)	\$293,958	\$95,760	\$389,718
Rainy Hill (includes Fishing Area and Picnic Area)	\$293,958	\$95,760	\$389,718
West of Blue Lake	\$221,760	\$20,790	\$242,550
RM 135 Long Beach/Springston	\$221,760	\$20,790	\$242,550
Across River from Springston	\$221,760	\$20,790	\$242,550
Springston Beach Site	\$180,936	\$59,220	\$240,156
Thompson Lake	\$273,798	\$90,720	\$364,518
Trestle Area next to Route 97	\$221,760	\$20,790	\$242,550
Information and Intervention	\$306,180	\$0	\$306,180
Total Estimated Present Worth Cost for Recreation			
Areas	\$6,500,000	\$900,000	\$7,500,000

Note

Total costs rounded to nearest \$100,000

Table 4. Estimated Costs for House Dust

Area	Total Number of Residences	Adjusted Number of Residences Affected	Direct Cost ^{a,b}		Mobilization 10%		10%		Contingency 30%		Total Present Worth Cost	
	Informat	tion and Interventio	n a	nd Vacuun	ı Lo	an Progra	m/I	Dust Mats				
Lower Basin	1,642	575	\$	43,470	\$	4,347	\$	4,782	\$	15,780	\$	68,378
Upper Basin	4,633	3,164	\$	239,198	\$	23,920	\$	26,312	\$	86,829	\$	376,259
Subtotal	6,275	3,739	\$	282,668	\$	28,267	\$	31,094	\$	102,609	\$	444,637
Real-Time Monitoring Equ	uipment										\$	9,324
Vacuum Loan Program											\$	20,160
35% of Lead Health Interv	vention progra	am costs. NPV for 1	15 y	ears, 7%							\$	1,270,080
Subtotal, Information and	Intervention a	and Vacuum Loan l	Pro	gram/Dust	Ma	ts					\$	1,745,000
		Interior Source Re	mo	val/More E	xter	sive Clear	ning	Ţ				
Lower Basin	1,642	39	\$	348,894	\$	34,889	\$	38,378	\$	126,649	\$	548,810
Upper Basin	4,633	226	\$	2,021,796	\$	202,180	\$	222,398	\$	733,912	\$	3,180,285
Subtotal	6,275	265	\$	2,370,690	\$	237,069	\$	260,776	\$	860,560	\$	3,729,095
Subtotal, Interior Source I	Subtotal, Interior Source Removal/More Extensive Cleani										\$	3,729,000
Total Estimated Cost for H	Iouse Dust										\$	5,474,000

^a Direct Cost for Information and Intervention and Vacuum Loan Program/Dust Mats = Number of residences affected times estimated cost for dust mats (\$20) and testing (\$40) for a total of \$60 per residence, escalated to 2006 costs (\$76 per residence). Testing costs assume sampling once per year for 5 years, every other year to 10 years, and only 1/5 of the total costs shared with other options.

^b Direct Cost for Interior Source Removal/More Extensive Cleaning = The average of the average cost per house for HUD cleaning (\$9,609) and the average cost per house for commercial cleaning (\$4,548) as described in the *Interim Data Summary Report for Pre- and Post-Cleaning Results House Dust Pilot Project 2000*, prepared for the Idaho State Department of Environmental Quality by TerraGraphics Environmental Engineering, Inc., May 2001, escalated to 2006 costs (\$7,100 per residence escalated to \$8,946 per residence).

^c Total Cost = Direct Cost (D) + Mobilization (M) + Administrative (A) + Contingency (Co). M = D times 10%. A = (D+M) times 10%. Co = (D+M+A) times 30%.

Table 5. Estimated Costs for Drinking Water

Area	Inside or Outside Water District	Estimated Number of Residences (Pine Creek Excluded)	Estimated Present Worth Capital Cost	Estimated Present Worth O&M Cost	Estimated Total Present Worth Cost
Upper Basin	Inside ^a	3	\$27,972	\$0	\$27,972
	Outside ^b	8	\$48,635	\$43,003	\$91,637
Lower Basin (includes Kingston	Inside ^a	76	\$708,624	\$0	\$708,624
subarea)	Outside ^c	79	\$1,443,330	\$92,647	\$1,535,977
Information and intervention ^d			\$541,800	\$0	\$541,800
Total		166	\$2,770,000	\$136,000	\$2,906,000

Notes:

Total costs rounded to nearest \$1,000.

^a Estimated costs based on connection to existing public water supply system.

^b Estimated costs based on point-of-use treatment.

^c Estimated costs based on installation of new drinking water supply well.

^d Assumed to be 12% of the basinwide present worth information and intervention costs.

Table 6. Estimated Costs for Aquatic Food Sources

Description	Estimated Present Worth Cost (2000)	Escalated Estimated Total Present Worth Cost
Lead Health Intervention Program ^a	\$230,000	\$290,000
Labor/Equipment/Materials ^b	\$310,000	\$391,000
Fish Sampling ^c	\$370,000	\$466,000
TOTAL	\$910,000	\$1,147,000

 $^{^{\}rm a}$ Estimated as 8% of the total present worth cost of the Lead Health Intervention Program (\$2,880,000 in year 2000 dollars)

^b Estimated as \$25,000 (year 2000 dollars) annually for 30 years

^c Estimated as \$250,000 in year 0, \$100,000 in year 5, and \$100,000 in year 10 (year 2000 dollars).

Table 7. Summary of Estimated Costs for Upper Basin Ecological Alternative 3

Watershed	Escalated Direct Capital	Escalated Indirect Capital	Escalated O&M	Escalated Total
Upper South Fork	\$65,000,000	\$39,000,000	\$11,000,000	\$115,000,000
Canyon Creek	\$84,000,000	\$51,000,000	\$49,000,000	\$184,000,000
Ninemile Creek	\$42,000,000	\$25,000,000	\$7,300,000	\$74,000,000
Big Creek	\$21,000,000	\$13,000,000	\$3,400,000	\$37,000,000
Moon Creek	\$2,400,000	\$1,400,000	\$600,000	\$4,400,000
South Fork	\$130,000,000	\$79,000,000	\$31,000,000	\$240,000,000
Total, excluding Pine Creek	\$344,000,000	\$208,000,000	\$102,000,000	\$654,000,000
Pine Creek	\$30,000,000	\$18,000,000	\$4,900,000	\$53,000,000

Note: Costs are rounded to the nearest one million dollars, or two significant figures for costs less than \$10 million

Table 8. Summary of Estimated Costs for the Comprehensive Ecological Remedy in the Lower Basin Page 1 of 2

Area	Description	TCD	Typical Conceptual Design	Quantity	Units	Unit Cost	Escalated Unit Cost (2006)	Escalated Direct Cost	Escalated Indirect Cost	Escalated O&M Cost	Escalated Total Present Worth Cost
River Bed	Sediment Bed Load	Lb-4b	Dredge and pipeline	17,599,021	cy	\$7.59	\$ 9.56	\$ 168,306,477	\$ 100,983,886	\$ -	\$ 269,290,364
	Sediment Bed Load	LB-3b	Subaqueous disposal	17,599,021	cy	\$6.20	\$ 7.81	\$ 137,483,552	\$ 82,490,131	\$ 27,496,710	\$ 247,470,394
Delta	Sediment- Delta	Lb-4b	Dredge and pipeline	3,000,000	cy	\$7.59	\$ 9.56	\$ 28,690,200	\$ 17,214,120	\$ -	\$ 45,904,320
	Sediment- Delta	LB-3b	Subaqueous disposal	3,000,000	cy	\$6.20	\$ 7.81	\$ 23,436,000	\$ 14,061,600	\$ 4,687,200	\$ 42,184,800
River Banks	Bank Wedge	LB-1	Excavate CDR banks (barge-based excavator)	1,775,919	cy	\$4.92	\$ 6.20	\$ 11,009,277	\$ 6,605,566	\$ -	\$ 17,614,843
	Bank Wedge	HAUL-1	Haul 10 miles one-way	1,775,919	cy	\$8.90	\$ 11.21	\$ 19,915,156	\$ 11,949,093	\$ -	\$ 31,864,249
	Bank Wedge	C-8	Regional repository	1,775,919	cy	\$10.31	\$ 12.99	\$ 23,070,253	\$ 13,842,152	\$ 4,614,051	\$ 41,526,456
	Bank Wedge	VBS-AVG	Vegetative bank stabilization (average cost)	174,175	lf	\$36.00	\$ 45.36	\$ 7,900,578	\$ 4,740,347	\$ 1,580,116	\$ 14,221,040
	Bank Wedge	BSRB-AVG	Bank stabilization via revetments (average cost)	86,713	lf	\$83.00	\$ 104.58	\$ 9,068,446	\$ 5,441,067	\$ 1,813,689	\$ 16,323,202
	Bank Wedge		Floodplain/riparian replanting	26,043,800	sf	\$0.39	\$ 0.49	\$ 12,797,923	\$ 7,678,754	\$ 2,559,585	\$ 23,036,262
Strobl Marsh	Wetland Sediment	C-1	Excavation (land-based trackhoe)	32,267	cy	\$2.70	\$ 3.40	\$ 109,772	\$ 65,863	\$ -	\$ 175,636
	Wetland Sediment	HAUL-1	Haul 10 miles one-way	32,267	cy	\$8.90	\$ 11.21	\$ 361,842	\$ 217,105	\$ -	\$ 578,947
	Wetland Sediment	C-8	Regional repository	32,267	cy	\$10.31	\$ 12.99	\$ 419,168	\$ 251,501	\$ 83,834	\$ 754,502
	Wetland Sediment	LB-8	Place sand cap	359,093	cy	\$8.02	\$ 10.11	\$ 3,628,707	\$ 2,177,224	\$ 725,741	\$ 6,531,672
Campbell Marsh	Wetland Sediment	C-1	Excavation (land-based trackhoe)	32,267	cy	\$2.70	\$ 3.40	\$ 109,772	\$ 65,863	\$ -	\$ 175,636
	Wetland Sediment	HAUL-1	Haul 10 miles one-way	32,267	cy	\$8.90	\$ 11.21	\$ 361,842	\$ 217,105	\$ -	\$ 578,947
	Wetland Sediment	C-8	Regional repository	32,267	cy	\$10.31	\$ 12.99	\$ 419,168	\$ 251,501	\$ 83,834	\$ 754,502
	Wetland Sediment	LB-8	Place sand cap	393,653	cy	\$8.02	\$ 10.11	\$ 3,977,942	\$ 2,386,765	\$ 795,588	\$ 7,160,296
Orling Slough	Wetland Sediment	C-1	Excavation (land-based trackhoe)	16,133	cy	\$2.70	\$ 3.40	\$ 54,884	\$ 32,931	\$ -	\$ 87,815
	Wetland Sediment	HAUL-1	Haul 10 miles one-way	16,133	cy	\$8.90	\$ 11.21	\$ 180,915	\$ 108,549	\$ -	\$ 289,465
	Wetland Sediment	C-8	Regional repository	16,133	cy	\$10.31	\$ 12.99	\$ 209,577	\$ 125,746	\$ 41,915	\$ 377,239
	Wetland Sediment	LB-8	Place sand cap	46,787	cy	\$8.02	\$ 10.11	\$ 472,792	\$ 283,675	\$ 94,558	\$ 851,026
Hidden Marsh	Wetland Sediment	C-1	Excavation (land-based trackhoe)	80,667	cy	\$2.70	\$ 3.40	\$ 274,429	\$ 164,657	\$ -	\$ 439,087
	Wetland Sediment	HAUL-1	Haul 10 miles one-way	80,667	cy	\$8.90	\$ 11.21	\$ 904,600	\$ 542,760	\$ -	\$ 1,447,360
	Wetland Sediment	C-8	Regional repository	80,667	cy	\$10.31	\$ 12.99	\$ 1,047,913	\$ 628,748	\$ 209,583	\$ 1,886,243
	Wetland Sediment	LB-8	Place sand cap	777,627	cy	\$8.02	\$ 10.11	\$ 7,858,076	\$ 4,714,846	\$ 1,571,615	\$ 14,144,537
Moffit Slough	Wetland Sediment	C-1	Excavation (land-based trackhoe)	32,267	cy	\$2.70	\$ 3.40	\$ 109,772	\$ 65,863	\$ -	\$ 175,636
	Wetland Sediment	HAUL-1	Haul 10 miles one-way	32,267	cy	\$8.90	\$ 11.21	\$ 361,842	\$ 217,105	\$ -	\$ 578,947
	Wetland Sediment	C-8	Regional repository	32,267	cy	\$10.31	\$ 12.99	\$ 419,168	\$ 251,501	\$ 83,834	\$ 754,502
	Wetland Sediment	LB-8	Place sand cap	325,893	cy	\$8.02	\$ 10.11	\$ 3,293,214	\$ 1,975,928	\$ 658,643	\$ 5,927,785
Thompson Marsh	Wetland Sediment	C-1	Excavation (land-based trackhoe)	16,133	cy	\$2.70	\$ 3.40	\$ 54,884	\$ 32,931	\$ -	\$ 87,815
	Wetland Sediment		Haul 10 miles one-way	16,133	cy	\$8.90	\$ 11.21	\$ 180,915	\$ 108,549	\$ -	\$ 289,465
	Wetland Sediment	C-8	Regional repository	16,133	cy	\$10.31	\$ 12.99	\$ 209,577	\$ 125,746	\$ 41,915	\$ 377,239
	Wetland Sediment	LB-8	Place sand cap	51,627	cy	\$8.02	\$ 10.11	\$ 521,701	\$ 313,021	\$ 104,340	\$ 939,062
Lane Marsh	Wetland Sediment	C-1	Excavation (land-based trackhoe)	48,400	cy	\$2.70	\$ 3.40	\$ 164,657	\$ 98,794	\$ -	\$ 263,451
	Wetland Sediment	HAUL-1	Haul 10 miles one-way	48,400	cy	\$8.90	\$ 11.21	\$ 542,758	\$ 325,655	\$ -	\$ 868,412
	Wetland Sediment	C-8	Regional repository	48,400	cy	\$10.31	\$ 12.99	\$ 628,745	\$ 377,247	\$ 125,749	\$ 1,131,741
	Wetland Sediment	LB-8	Place sand cap	471,093	cy	\$8.02	\$ 10.11	\$ 4,760,489	\$ 2,856,293	\$ 952,098	\$ 8,568,880
Thompson Marsh	Wetland Sediment	C-1	Excavation (land-based trackhoe)	48,400	cy	\$2.70	\$ 3.40	\$ 164,657	\$ 98,794	\$ -	\$ 263,451
(wetland areas)	Wetland Sediment	HAUL-1	Haul 10 miles one-way	48,400	cy	\$8.90	\$ 11.21	\$ 542,758	\$ 325,655	\$ -	\$ 868,412
	Wetland Sediment	C-8	Regional repository	48,400	cy	\$10.31	\$ 12.99	\$ 628,745	\$ 377,247	\$ 125,749	\$ 1,131,741
	Wetland Sediment	LB-8	Place sand cap	438,827	cy	\$8.02	\$ 10.11	\$ 4,434,435	\$ 2,660,661	\$ 886,887	\$ 7,981,982
Killarney Lake	Wetland Sediment	C-1	Excavation (land-based trackhoe)	32,267	cy	\$2.70	\$ 3.40	\$ 109,772	\$ 65,863	\$ -	\$ 175,636
(wetland areas)	Wetland Sediment	HAUL-1	Haul 10 miles one-way	32,267	cy	\$8.90	\$ 11.21	\$ 361,842	\$ 217,105	\$ -	\$ 578,947
	Wetland Sediment	C-8	Regional repository	32,267	cy	\$10.31	\$ 12.99	\$ 419,168	\$ 251,501	\$ 83,834	\$ 754,502
	Wetland Sediment	LB-8	Place sand cap	262,973	cy	\$8.02	\$ 10.11	\$ 2,657,395	\$ 1,594,437	\$ 531,479	\$ 4,783,311

Table 8. Summary of Estimated Costs for the Comprehensive Ecological Remedy in the Lower Basin Page 2 of 2

Area	Description	TCD	Typical Conceptual Design	Quantity	Units	Unit Cost	Escalated Unit Cost (2006)	Escalated Direct Cost	Escalated Indirect Cost	Escalated O&M Cost	Escalated Total Present Worth Cost
Swan Lake	Wetland Sediment	C-1	Excavation (land-based trackhoe)	64,533	cy	\$2.70	\$ 3.40	\$ 219,541		\$ -	\$ 351,266
(wetland areas)	Wetland Sediment	HAUL-1	Haul 10 miles one-way	64,533	cy	\$8.90	\$ 11.21	\$ 723,673	\$ 434,204	\$ -	\$ 1,157,877
	Wetland Sediment	C-8	Regional repository	64,533	cy	\$10.31	\$ 12.99	\$ 838,322	\$ 502,993	\$ 167,664	\$ 1,508,980
	Wetland Sediment	LB-8	Place sand cap	635,653	cy	\$8.02	\$ 10.11	\$ 6,423,401	\$ 3,854,040	\$ 1,284,680	\$ 11,562,121
Medicine Lake	Wetland Sediment	C-1	Excavation (land-based trackhoe)	32,267	cy	\$2.70	\$ 3.40	\$ 109,772	\$ 65,863	\$ -	\$ 175,636
(wetland areas)	Wetland Sediment	HAUL-1	Haul 10 miles one-way	32,267	cy	\$8.90	\$ 11.21	\$ 361,842	\$ 217,105	\$ -	\$ 578,947
	Wetland Sediment	C-8	Regional repository	32,267	cy	\$10.31	\$ 12.99	\$ 419,168	\$ 251,501	\$ 83,834	\$ 754,502
	Wetland Sediment	LB-8	Place sand cap	285,560	cy	\$8.02	\$ 10.11	\$ 2,885,641	\$ 1,731,385	\$ 577,128	\$ 5,194,154
Anderson Lake	Wetland Sediment	C-1	Excavation (land-based trackhoe)	16,000	cy	\$2.70	\$ 3.40	\$ 54,432	\$ 32,659	\$ -	\$ 87,091
(wetland areas)	Wetland Sediment	HAUL-1	Haul 10 miles one-way	16,000	cy	\$8.90	\$ 11.21	\$ 179,424	\$ 107,654	\$ -	\$ 287,078
	Wetland Sediment	C-8	Regional repository	16,000	cy	\$10.31	\$ 12.99	\$ 207,850	\$ 124,710	\$ 41,570	\$ 374,129
	Wetland Sediment	LB-8	Place sand cap	71,000	cy	\$8.02	\$ 10.11	\$ 717,469	\$ 430,482	\$ 143,494	\$ 1,291,445
Bare Marsh	Wetland Sediment	C-1	Excavation (land-based trackhoe)	32,000	cy	\$2.70	\$ 3.40	\$ 108,864	\$ 65,318	\$ -	\$ 174,182
	Wetland Sediment	HAUL-1	Haul 10 miles one-way	32,000	cy	\$8.90	\$ 11.21	\$ 358,848	\$ 215,309	\$ -	\$ 574,157
	Wetland Sediment	C-8	Regional repository	32,000	cy	\$10.31	\$ 12.99	\$ 415,699	\$ 249,420	\$ 83,140	\$ 748,259
	Wetland Sediment	LB-8	Place sand cap	270,000	cy	\$8.02	\$ 10.11	\$ 2,728,404	\$ 1,637,042	\$ 545,681	\$ 4,911,127
Cav e Lake	Wetland Sediment	C-1	Excavation (land-based trackhoe)	32,000	cy	\$2.70	\$ 3.40	\$ 108,864	\$ 65,318	\$ -	\$ 174,182
(wetland areas)	Wetland Sediment	HAUL-1	Haul 10 miles one-way	32,000	cy	\$8.90	\$ 11.21	\$ 358,848	\$ 215,309	\$ -	\$ 574,157
	Wetland Sediment	C-8	Regional repository	32,000	cy	\$10.31	\$ 12.99	\$ 415,699	\$ 249,420	\$ 83,140	\$ 748,259
	Wetland Sediment	LB-8	Place sand cap	310,000	cy	\$8.02	\$ 10.11	\$ 3,132,612	\$ 1,879,567	\$ 626,522	\$ 5,638,702
Other (Ag lands)	Wetland Sediment	N/A	Allowance for cleanup	6	LS	\$1,000,000	\$ 1,260,000	\$ 7,560,000	\$ 4,536,000	\$ -	\$ 12,096,000
Thompson Lake	Palustrine Sediment	LB-4b	Dredge and pipeline	67,000	cy	\$7.59	\$ 9.56	\$ 640,748	\$ 384,449	s -	\$ 1,025,196
	Palustrine Sediment	C-8	Regional repository	67,000	cy	\$10.31	\$ 12.99	\$ 870,370	\$ 522,222	\$ 174,074	\$ 1,566,666
Killarney Lake	Palustrine Sediment	LB-4b	Dredge and pipeline	265,000	cv	\$7.59	\$ 9.56	\$ 2,534,301	\$ 1,520,581	\$ -	\$ 4,054,882
	Palustrine Sediment	C-8	Regional repository	265,000	cy	\$10.31	\$ 12.99	\$ 3,442,509	\$ 2,065,505	\$ 688,502	\$ 6,196,516
Medicine Lake	Palustrine Sediment	LB-4b	Dredge and pipeline	158,000	cy	\$7.59	\$ 9.56	\$ 1,511,017	\$ 906,610	\$ -	\$ 2,417,628
	Palustrine Sediment	C-8	Regional repository	158,000	cy	\$10.31	\$ 12.99	\$ 2,052,515	\$ 1,231,509	\$ 410,503	\$ 3,694,527
Swan Lake	Palustrine Sediment	LB-4b	Dredge and pipeline	81,000	cv	\$7.59	\$ 9.56	\$ 774,635	\$ 464,781	\$ -	\$ 1,239,417
	Palustrine Sediment	C-8	Regional repository	81,000	sf	\$10.31	\$ 12.99	\$ 1.052.239	\$ 631,343	\$ 210,448	\$ 1,894,029
Anderson Lake	Palustrine Sediment	LB-4b	Dredge and pipeline	120.000	cv	\$7.59	\$ 9.56	\$ 1.147.608	\$ 688,565	\$ 210,440	\$ 1,836,173
I maerson zane	Palustrine Sediment	C-8	Regional repository	120,000	cy	\$10.31	\$ 12.99	\$ 1,558,872	\$ 935,323	\$ 311,774	\$ 2,805,970
Cave Lake	Palustrine Sediment	LB-4b	Dredge and pipeline	180,000	cy	\$7.59	\$ 9.56	\$ 1,721,412	\$ 1,032,847	\$ 311,774	\$ 2,754,259
Cave Lake	Palustrine Sediment	C-8	Regional repository	180,000	cy	\$10.31	\$ 12.99	\$ 2,338,308	\$ 1,402,985	\$ 467.662	\$ 4.208.954
Floodplain		LB-2	Soil amendment	884	ac	\$1,636,00	\$ 2,061	\$ 1.822.242	\$ 1,093,345	\$ 364,448	\$ 3,280,036
i iooupiani		LB-2 LB-5	Sediment trap	2	ea	\$270,020	\$ 340,225	\$ 680,450	\$ 408,270	\$ 304,446	\$ 1,088,721
	Floodplain Sediments	C-1	Excavation (land-based excavator)	50,000	cy	\$2.70	\$ 3.40	\$ 170.100	\$ 102,060	s -	\$ 272,160
		HAUL-1	Haul 10 miles one-way	50,000		\$8.90	\$ 11.21	\$ 560,700	\$ 336,420	s -	. ,
		C-8		50,000	cy	\$8.90 \$14.61	\$ 11.21 \$ 18.41	\$ 560,700 \$ 920,430	\$ 336,420 \$ 552.258	\$ 184,086	\$ 897,120 \$ 1,656,774
C-1			Regional repository		cy					Ψ 101,000	, , , , , , , ,
Splays	Splay deposits	C-1	Excavate (land-based excavator)	50,000	cy	\$2.70	\$ 3.40 \$ 11.21	\$ 170,100	\$ 102,060	\$ - \$ -	\$ 272,160
	1 7 1	HAUL-1	Haul 10 miles one-way	50,000	cy	\$8.90		\$ 560,700	\$ 336,420	7	\$ 897,120
Mississ Flats	Splay deposits	C-8	Regional repository	50,000	cy	\$14.61	\$ 18.41	\$ 920,430	\$ 552,258	\$ 184,086	\$ 1,656,774
Mission Flats	Dredge Spoils	C-11	Hydraulic containment	13,500	lf	\$278.00	\$ 350	\$ 4,728,780	\$ 2,837,268	\$ 945,756	\$ 8,511,804
	Dredge Spoils	TRMT-1a	Media filter treatment plant	1,000	gpm	\$2,180.00	\$ 2,747	\$ 2,746,800	\$ 1,648,080	\$ 1,648,080	\$ 6,042,960
	Dredge Spoils	LB-2	Soil amendment	678	ac	\$1,636.00	\$ 2,061	\$ 1,397,602	\$ 838,561	\$ 279,520	\$ 2,515,684
	Dredge Spoils	LB-7a	Construct new levee	13,500	lf	\$151.00	\$ 190	\$ 2,568,510	\$ 1,541,106	\$ 513,702	\$ 4,623,318
TOTALS:	1							\$ 548,000,000	\$ 329,000,000	\$ 60,000,000	\$ 937,000,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
ACCESSUG01	Road Construction Required To Access Remote Source	General	Temporary Access Road	28	MI	\$250,000	\$6,900,000	\$4,200,000	\$0	\$11,000,000
HHWPUG01-1	Upland Waste Pile W/human Health Exposure	Upland Waste Rock	Cover waste pile	1	AC	\$54,000	\$54,000	\$33,000	\$6,800	\$93,000
HHWPUG01-2	Upland Waste Pile W/human Health Exposure	Upland Waste Rock	Cover waste pile	1	AC	\$54,000	\$54,000	\$33,000	\$6,800	\$93,000
HHWPUG01-3	Upland Waste Pile W/human Health Exposure	Upland Waste Rock	Cover waste pile	1	AC	\$54,000	\$54,000	\$33,000	\$6,800	\$93,000
HHWPUG01-4	Upland Waste Pile W/human Health Exposure	Upland Waste Rock	Cover waste pile	1	AC	\$54,000	\$54,000	\$33,000	\$6,800	\$93,000
HHWPUG01-5	Upland Waste Pile W/human Health Exposure	Upland Waste Rock	Cover waste pile	1	AC	\$54,000	\$54,000	\$33,000	\$6,800	\$93,000
LHAULUG01	Hauling To Local Repository	General	Haul to Local Repository, 1/2 Mile One Way	320,000	CY-MI	\$1.12	\$360,000	\$220,000	\$0	\$580,000
LOK001	Lucky Calumet No. 1	Upland Waste Rock	Regrade/Consolidate/Revegetate	1.3	AC	\$71,000	\$91,000	\$55,000	\$11,000	\$160,000
LOK002	Lucky Calumet No. 2	Upland Waste Rock	Regrade/Consolidate/Revegetate	1.3	AC	\$71,000	\$90,000	\$54,000	\$11,000	\$150,000
LOK004	Snowshoe No. 2	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
LOK004	Snowshoe No. 2	Floodplain Waste Rock	Excavation	61,000	CY	\$3.40	\$210,000	\$120,000	\$0	\$330,000
LOK004	Snowshoe No. 2	Floodplain Waste Rock	Local Repository Above Flood Level	61,000	CY	\$12	\$750,000	\$450,000	\$170,000	\$1,400,000
LOK004	Snowshoe No. 2	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
LOK005	Lucky Boy No. 2	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.18	AC	\$71,000	\$13,000	\$7,600	\$1,600	\$22,000
LOK006	Lucky Boy No. 1	Floodplain Waste Rock	Excavation	1,200	CY	\$3.40	\$4,200	\$2,500	\$0	\$6,800
LOK006	Lucky Boy No. 1	Floodplain Waste Rock	Low Permeability Cap	0.26	AC	\$190,000	\$49,000	\$30,000	\$6,200	\$85,000
LOK007	Butte & Coeur D Alene (idaho Silver)	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.27	AC	\$71,000	\$19,000	\$11,000	\$2,400	\$33,000
LOK008	Idaho Silver No. 2	Floodplain Waste Rock	Low Permeability Cap	0.38	AC	\$190,000	\$72,000	\$43,000	\$9,000	\$120,000
LOK008	Idaho Silver No. 2	Floodplain Waste Rock	Excavation	1,800	CY	\$3.40	\$6,200	\$3,700	\$0	\$9,900

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
LOK009	Snowstorm No. 4	Floodplain Waste Rock	Local Repository Above Flood Level	22,000	CY	\$12	\$270,000	\$160,000	\$61,000	\$490,000
LOK009	Snowstorm No. 4	Floodplain Waste Rock	Excavation	22,000	CY	\$3.40	\$75,000	\$45,000	\$0	\$120,000
LOK010	Hash House Mine	Floodplain Waste Rock	Low Permeability Cap	0.14	AC	\$190,000	\$27,000	\$16,000	\$3,300	\$46,000
LOK010	Hash House Mine	Floodplain Waste Rock	Excavation	670	CY	\$3.40	\$2,300	\$1,400	\$0	\$3,700
LOK011	Snowstorm No. 3	Floodplain Waste Rock	Excavation	55,000	CY	\$3.40	\$190,000	\$110,000	\$0	\$300,000
LOK011	Snowstorm No. 3	Adit Drainage	Permeable Reactive Trench	12	CY	\$550	\$6,500	\$3,900	\$39,000	\$49,000
LOK011	Snowstorm No. 3	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
LOK011	Snowstorm No. 3	Floodplain Waste Rock	Local Repository Above Flood Level	55,000	CY	\$12	\$670,000	\$400,000	\$150,000	\$1,200,000
LOK017	Beacon Light	Floodplain Waste Rock	Excavation	6,200	CY	\$3.40	\$21,000	\$13,000	\$0	\$34,000
LOK017	Beacon Light	Floodplain Waste Rock	Low Permeability Cap	3.6	AC	\$190,000	\$690,000	\$410,000	\$86,000	\$1,200,000
LOK024	Silver Cable Mine	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
LOK024	Silver Cable Mine	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
LOK048	Snowstorm Apex	Floodplain Waste Rock	Regrade/Consolidate/Revegetate	0.27	AC	\$71,000	\$19,000	\$11,000	\$2,400	\$33,000
LOK050	Daisy Gulch Tailings Pond	Upland Tailings	Local Repository Above Flood Level	13,000	CY	\$12	\$160,000	\$95,000	\$36,000	\$290,000
LOK050	Daisy Gulch Tailings Pond	Upland Tailings	Excavation	13,000	CY	\$3.40	\$44,000	\$27,000	\$0	\$71,000
LOK051	Daisy Gulch Old Landfill	Floodplain Artificial Fill	Regrade/Consolidate/Revegetate	1.9	AC	\$71,000	\$130,000	\$81,000	\$17,000	\$230,000
LOK053	Unnamed Adit	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.31	AC	\$71,000	\$22,000	\$13,000	\$2,700	\$38,000
MUL001	Golconda Minesite	Floodplain Waste Rock	Local Repository Above Flood Level	75,000	CY	\$12	\$920,000	\$550,000	\$210,000	\$1,700,000
MUL001	Golconda Minesite	Floodplain Waste Rock	Excavation	75,000	CY	\$3.40	\$260,000	\$150,000	\$0	\$410,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
MUL002	Golconda Millsite	Upland Tailings	Excavation	23,000	CY	\$3.40	\$78,000	\$47,000	\$0	\$130,000
MUL002	Golconda Millsite	Upland Tailings	Local Repository Above Flood Level	23,000	CY	\$12	\$280,000	\$170,000	\$63,000	\$510,000
MUL004	United Lead Zinc Mine	Floodplain Waste Rock	Excavation	3,900	CY	\$3.40	\$13,000	\$8,000	\$0	\$21,000
MUL004	United Lead Zinc Mine	Floodplain Waste Rock	Low Permeability Cap	0.82	AC	\$190,000	\$160,000	\$94,000	\$20,000	\$270,000
MUL006	Square Deal Mine	Floodplain Waste Rock	Low Permeability Cap	0.73	AC	\$190,000	\$140,000	\$83,000	\$17,000	\$240,000
MUL006	Square Deal Mine	Floodplain Waste Rock	Excavation	3,500	CY	\$3.40	\$12,000	\$7,200	\$0	\$19,000
MUL007	Wonder Mine	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.95	AC	\$71,000	\$67,000	\$40,000	\$8,400	\$120,000
MUL008	Alice Mine	Floodplain Waste Rock	Low Permeability Cap	1.3	AC	\$190,000	\$250,000	\$150,000	\$32,000	\$440,000
MUL008	Alice Mine	Floodplain Waste Rock	Excavation	6,600	CY	\$3.40	\$22,000	\$13,000	\$0	\$36,000
MUL009	Silver Shaft	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.25	AC	\$71,000	\$18,000	\$11,000	\$2,200	\$30,000
MUL012	Star 1200 Level	Floodplain Waste Rock	Low Permeability Cap	6.8	AC	\$190,000	\$1,300,000	\$770,000	\$160,000	\$2,200,000
MUL012	Star 1200 Level	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
MUL012	Star 1200 Level	Floodplain Waste Rock	Excavation	110,000	CY	\$3.40	\$370,000	\$220,000	\$0	\$590,000
MUL012	Star 1200 Level	Adit Drainage	Media Filter Treatment Plant	310	GPM	\$1,500	\$470,000	\$350,000	\$940,000	\$1,800,000
MUL013	We Like Mine	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.53	AC	\$71,000	\$37,000	\$22,000	\$4,700	\$65,000
MUL014	Grouse Mine	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
MUL014	Grouse Mine	Upland Waste Rock	Excavation	1,600	CY	\$3.40	\$5,400	\$3,200	\$0	\$8,600
MUL014	Grouse Mine	Adit Drainage	Permeable Reactive Trench	26	CY	\$550	\$14,000	\$8,600	\$86,000	\$110,000
MUL014	Grouse Mine	Upland Waste Rock	Low Permeability Cap	0.33	AC	\$190,000	\$63,000	\$38,000	\$7,800	\$110,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
MUL015	West Star Mine	Upland Waste Rock	Regrade/Consolidate/Revegetate	9.3	AC	\$71,000	\$660,000	\$400,000	\$82,000	\$1,100,000
MUL018	Mullan Metals Mine	Floodplain Waste Rock	Excavation	14,000	CY	\$3.40	\$49,000	\$29,000	\$0	\$78,000
MUL018	Mullan Metals Mine	Floodplain Waste Rock	Local Repository Above Flood Level	14,000	CY	\$12	\$180,000	\$110,000	\$40,000	\$320,000
MUL019	Morning No.6	Floodplain Waste Rock	Excavation	67,000	CY	\$3.40	\$230,000	\$140,000	\$0	\$370,000
MUL019	Morning No.6	Floodplain Tailings	Excavation	85,000	CY	\$3.40	\$290,000	\$170,000	\$0	\$460,000
MUL019	Morning No.6	Adit Drainage	Permeable Reactive Trench	34	CY	\$550	\$19,000	\$11,000	\$110,000	\$140,000
MUL019	Morning No.6	Floodplain Tailings	Local Repository Above Flood Level	85,000	CY	\$12	\$1,000,000	\$620,000	\$230,000	\$1,900,000
MUL019	Morning No.6	Buildings & Structures	Decon millsite	1	LS	\$130,000	\$130,000	\$76,000	\$6,300	\$210,000
MUL019	Morning No.6	Floodplain Waste Rock	Low Permeability Cap	18	AC	\$190,000	\$3,400,000	\$2,000,000	\$420,000	\$5,800,000
MUL019	Morning No.6	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
MUL020	Lucky Friday Tailings Pond No. 3	Groundwater	Permeable Reactive Trench	170	CY	\$550	\$94,000	\$57,000	\$570,000	\$720,000
MUL020	Lucky Friday Tailings Pond No. 3	Floodplain Sediments	Hydraulic Isolation Using Slurry Wall	3,200	LF	\$350	\$1,100,000	\$680,000	\$450,000	\$2,300,000
MUL020	Lucky Friday Tailings Pond No. 3	Floodplain Tailings	Hydraulic Isolation Using Slurry Wall	1	LF	\$350	\$350	\$210	\$140	\$710
MUL021	Independence Mine	Floodplain Waste Rock	Excavation	5,800	CY	\$3.40	\$20,000	\$12,000	\$0	\$32,000
MUL021	Independence Mine	Floodplain Waste Rock	Low Permeability Cap	1.2	AC	\$190,000	\$230,000	\$140,000	\$29,000	\$400,000
MUL022	Sunshine Premier Mine	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.35	AC	\$71,000	\$25,000	\$15,000	\$3,100	\$43,000
MUL023	Fanny Gremm Mine	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
MUL023	Fanny Gremm Mine	Floodplain Waste Rock	Local Repository Above Flood Level	31,000	CY	\$12	\$380,000	\$230,000	\$86,000	\$700,000
MUL023	Fanny Gremm Mine	Floodplain Waste Rock	Excavation	31,000	CY	\$3.40	\$110,000	\$64,000	\$0	\$170,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
MUL023	Fanny Gremm Mine	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
MUL027	Morning No.4	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.99	AC	\$140,000	\$140,000	\$82,000	\$17,000	\$240,000
MUL027	Morning No.4	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
MUL027	Morning No.4	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
MUL028	Morning No.5	Adit Drainage	Permeable Reactive Trench	15	CY	\$550	\$8,300	\$5,000	\$50,000	\$63,000
MUL028	Morning No.5	Floodplain Waste Rock	Low Permeability Cap	4.3	AC	\$190,000	\$810,000	\$490,000	\$100,000	\$1,400,000
MUL028	Morning No.5	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
MUL028	Morning No.5	Floodplain Waste Rock	Excavation	20,000	CY	\$3.40	\$69,000	\$42,000	\$0	\$110,000
MUL029	North Franklin Mine	Floodplain Waste Rock	Local Repository Above Flood Level	20,000	CY	\$12	\$250,000	\$150,000	\$56,000	\$460,000
MUL029	North Franklin Mine	Floodplain Waste Rock	Excavation	20,000	CY	\$3.40	\$69,000	\$42,000	\$0	\$110,000
MUL030	Wall Street Mine	Floodplain Waste Rock	Low Permeability Cap	0.36	AC	\$190,000	\$68,000	\$41,000	\$8,600	\$120,000
MUL030	Wall Street Mine	Floodplain Waste Rock	Excavation	1,700	CY	\$3.40	\$5,900	\$3,500	\$0	\$9,400
MUL031	Cincinnati Mine	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.34	AC	\$71,000	\$24,000	\$14,000	\$3,000	\$41,000
MUL033	American Commander No.2	Floodplain Waste Rock	Local Repository Above Flood Level	16,000	CY	\$12	\$190,000	\$120,000	\$44,000	\$350,000
MUL033	American Commander No.2	Floodplain Waste Rock	Excavation	16,000	CY	\$3.40	\$54,000	\$32,000	\$0	\$86,000
MUL037	Lucky Friday Tailings Pond No. 2	Floodplain Sediments	Regional Repository	43,000	CY	\$11	\$470,000	\$280,000	\$95,000	\$850,000
MUL037	Lucky Friday Tailings Pond No. 2	Floodplain Sediments	Hydraulic Isolation Using Slurry Wall	3,400	LF	\$350	\$1,200,000	\$720,000	\$480,000	\$2,400,000
MUL037	Lucky Friday Tailings Pond No. 2	Floodplain Sediments	Sediment Excavation	43,000	CY	\$13	\$540,000	\$330,000	\$0	\$870,000
MUL037	Lucky Friday Tailings Pond No. 2	Floodplain Tailings	Hydraulic Isolation Using Slurry Wall	1	LF	\$350	\$350	\$210	\$140	\$710

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
MUL038	Gold Hunter No. 6	Floodplain Tailings	Excavation	13,000	CY	\$3.40	\$44,000	\$27,000	\$0	\$71,000
MUL038	Gold Hunter No. 6	Floodplain Tailings	Local Repository Above Flood Level	13,000	CY	\$12	\$160,000	\$95,000	\$36,000	\$290,000
MUL038	Gold Hunter No. 6	Floodplain Waste Rock	Low Permeability Cap	2.8	AC	\$190,000	\$530,000	\$320,000	\$66,000	\$910,000
MUL038	Gold Hunter No. 6	Floodplain Waste Rock	Excavation	13,000	CY	\$3.40	\$45,000	\$27,000	\$0	\$72,000
MUL042	Gold Hunter No. 5	Floodplain Waste Rock	Excavation	14,000	CY	\$3.40	\$47,000	\$28,000	\$0	\$76,000
MUL042	Gold Hunter No. 5	Floodplain Waste Rock	Local Repository Above Flood Level	14,000	CY	\$12	\$170,000	\$100,000	\$38,000	\$310,000
MUL043	Silver Reef Mine	Floodplain Waste Rock	Excavation	18,000	CY	\$3.40	\$60,000	\$36,000	\$0	\$95,000
MUL043	Silver Reef Mine	Floodplain Waste Rock	Local Repository Above Flood Level	18,000	CY	\$12	\$210,000	\$130,000	\$48,000	\$390,000
MUL045	Homestake Mine	Floodplain Waste Rock	Local Repository Above Flood Level	28,000	CY	\$12	\$340,000	\$200,000	\$76,000	\$620,000
MUL045	Homestake Mine	Floodplain Waste Rock	Excavation	28,000	CY	\$3.40	\$94,000	\$56,000	\$0	\$150,000
MUL047	Lottie L. Mine	Floodplain Waste Rock	Excavation	1,100	CY	\$3.40	\$3,800	\$2,300	\$0	\$6,000
MUL047	Lottie L. Mine	Floodplain Waste Rock	Low Permeability Cap	0.23	AC	\$190,000	\$44,000	\$26,000	\$5,500	\$75,000
MUL048	Alma Mine	Floodplain Waste Rock	Local Repository Above Flood Level	21,000	CY	\$12	\$260,000	\$160,000	\$59,000	\$480,000
MUL048	Alma Mine	Floodplain Waste Rock	Excavation	21,000	CY	\$3.40	\$73,000	\$44,000	\$0	\$120,000
MUL049	Copper Plate Mine	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.30	AC	\$71,000	\$21,000	\$13,000	\$2,600	\$37,000
MUL051	Pilot Mine	Floodplain Waste Rock	Excavation	5,800	CY	\$3.40	\$20,000	\$12,000	\$0	\$31,000
MUL051	Pilot Mine	Floodplain Waste Rock	Low Permeability Cap	1.2	AC	\$190,000	\$230,000	\$140,000	\$29,000	\$390,000
MUL052	Copper King Mine	Floodplain Waste Rock	Low Permeability Cap	1.3	AC	\$190,000	\$250,000	\$150,000	\$32,000	\$440,000
MUL052	Copper King Mine	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
MUL052	Copper King Mine	Floodplain Waste Rock	Excavation	3,000	CY	\$3.40	\$10,000	\$6,100	\$0	\$16,000
MUL052	Copper King Mine	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
MUL053	National Mine	Upland Waste Rock	Regrade/Consolidate/Revegetate	3.2	AC	\$71,000	\$220,000	\$130,000	\$28,000	\$380,000
MUL054	Unnamed Adit	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.94	AC	\$71,000	\$66,000	\$40,000	\$8,300	\$110,000
MUL056	Coughlin Mine	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.35	AC	\$71,000	\$25,000	\$15,000	\$3,100	\$43,000
MUL057	Butte And Coeur D Alene Mine	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.79	AC	\$71,000	\$56,000	\$33,000	\$7,000	\$96,000
MUL058	Lucky Friday Tailings Pond No.1	Floodplain Sediments	Hydraulic Isolation Using Slurry Wall	6,100	LF	\$350	\$2,200,000	\$1,300,000	\$860,000	\$4,300,000
MUL058	Lucky Friday Tailings Pond No.1	Floodplain Sediments	Regional Repository	140,000	CY	\$11	\$1,500,000	\$920,000	\$310,000	\$2,800,000
MUL058	Lucky Friday Tailings Pond No.1	Floodplain Sediments	Sediment Excavation	140,000	CY	\$13	\$1,800,000	\$1,100,000	\$0	\$2,800,000
MUL058	Lucky Friday Tailings Pond No.1	Floodplain Tailings	Hydraulic Isolation Using Slurry Wall	1	LF	\$350	\$350	\$210	\$140	\$710
MUL059	Rock Creek Mine Rock Dump	Floodplain Waste Rock	Local Repository Above Flood Level	23,000	CY	\$12	\$280,000	\$170,000	\$62,000	\$500,000
MUL059	Rock Creek Mine Rock Dump	Floodplain Waste Rock	Excavation	23,000	CY	\$3.40	\$77,000	\$46,000	\$0	\$120,000
MUL060	Rock Creek Mine	Floodplain Waste Rock	Excavation	1,000	CY	\$3.40	\$3,400	\$2,100	\$0	\$5,500
MUL060	Rock Creek Mine	Floodplain Waste Rock	Low Permeability Cap	0.21	AC	\$190,000	\$40,000	\$24,000	\$5,000	\$69,000
MUL063	Gem State Mine	Floodplain Waste Rock	Excavation	1,000	CY	\$3.40	\$3,400	\$2,100	\$0	\$5,500
MUL063	Gem State Mine	Floodplain Waste Rock	Low Permeability Cap	0.21	AC	\$190,000	\$40,000	\$24,000	\$5,000	\$69,000
MUL065	Moe Mine	Floodplain Waste Rock	Excavation	1,500	CY	\$3.40	\$5,100	\$3,000	\$0	\$8,100
MUL065	Moe Mine	Floodplain Waste Rock	Low Permeability Cap	0.31	AC	\$190,000	\$59,000	\$35,000	\$7,400	\$100,000
MUL071	Atlas Mine	Floodplain Waste Rock	Excavation	500	CY	\$3.40	\$1,700	\$1,000	\$0	\$2,700

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
MUL071	Atlas Mine	Floodplain Waste Rock	Low Permeability Cap	8.1	AC	\$190,000	\$1,500,000	\$930,000	\$190,000	\$2,700,000
MUL073	Atlas Mine (carbonate Hill)	Upland Waste Rock	Regrade/Consolidate/Revegetate	2.1	AC	\$71,000	\$150,000	\$87,000	\$18,000	\$250,000
MUL081	Reindeer Queen Mine	Floodplain Waste Rock	Excavation	1,600	CY	\$3.40	\$5,400	\$3,300	\$0	\$8,700
MUL081	Reindeer Queen Mine	Floodplain Waste Rock	Low Permeability Cap	0.76	AC	\$190,000	\$140,000	\$87,000	\$18,000	\$250,000
MUL083	Copper Queen Mine	Floodplain Waste Rock	Excavation	3,100	CY	\$3.40	\$10,000	\$6,300	\$0	\$17,000
MUL083	Copper Queen Mine	Floodplain Waste Rock	Low Permeability Cap	0.64	AC	\$190,000	\$120,000	\$73,000	\$15,000	\$210,000
MUL103	Missoula Mine	Floodplain Waste Rock	Excavation	1,300	CY	\$3.40	\$4,300	\$2,600	\$0	\$6,900
MUL103	Missoula Mine	Floodplain Waste Rock	Low Permeability Cap	0.94	AC	\$190,000	\$180,000	\$110,000	\$22,000	\$310,000
MUL119	Unnamed Adit	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.28	AC	\$71,000	\$20,000	\$12,000	\$2,500	\$34,000
MUL120	Banner Mine No. 02	Floodplain Waste Rock	Low Permeability Cap	0.34	AC	\$190,000	\$65,000	\$39,000	\$8,100	\$110,000
MUL120	Banner Mine No. 02	Floodplain Waste Rock	Excavation	110	CY	\$3.40	\$380	\$230	\$0	\$610
MUL129	Atlas Mine Rock Dump	Floodplain Waste Rock	Low Permeability Cap	1.1	AC	\$190,000	\$210,000	\$130,000	\$26,000	\$360,000
MUL129	Atlas Mine Rock Dump	Floodplain Waste Rock	Excavation	5,300	CY	\$3.40	\$18,000	\$11,000	\$0	\$29,000
MUL131	National Millsite	Upland Tailings	Local Repository Above Flood Level	6,600	CY	\$12	\$81,000	\$48,000	\$18,000	\$150,000
MUL131	National Millsite	Upland Tailings	Excavation	6,600	CY	\$3.40	\$22,000	\$13,000	\$0	\$36,000
MUL132	National Millsite Adjacent Tailings	Upland Tailings	Local Repository Above Flood Level	1,800	CY	\$12	\$22,000	\$13,000	\$5,000	\$40,000
MUL132	National Millsite Adjacent Tailings	Upland Tailings	Excavation	1,800	CY	\$3.40	\$6,100	\$3,700	\$0	\$9,800
MUL135	Unnamed Adit	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.18	AC	\$71,000	\$13,000	\$7,600	\$1,600	\$22,000
MUL136	Unnamed Adit	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.12	AC	\$71,000	\$8,500	\$5,100	\$1,100	\$15,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
MUL139	Unnamed Adit	Upland Waste Rock	Excavation	200	CY	\$3.40	\$680	\$410	\$0	\$1,100
MUL139	Unnamed Adit	Upland Waste Rock	Local Repository Above Flood Level	200	CY	\$12	\$2,400	\$1,500	\$550	\$4,500
MUL141	Mill Ck Impacted Riparian No. 3	Floodplain Sediments	Local Repository Above Flood Level	4,800	CY	\$12	\$59,000	\$35,000	\$13,000	\$110,000
MUL141	Mill Ck Impacted Riparian No. 3	Floodplain Sediments	Sediment Excavation	4,800	CY	\$13	\$61,000	\$36,000	\$0	\$97,000
MUL142	Grouse Gulch Impacted Riparian	Floodplain Sediments	Local Repository Above Flood Level	17,000	CY	\$12	\$210,000	\$130,000	\$47,000	\$380,000
MUL142	Grouse Gulch Impacted Riparian	Floodplain Sediments	Sediment Excavation	17,000	CY	\$13	\$220,000	\$130,000	\$0	\$350,000
MUL145	Mill Ck Impacted Riparian No. 2	Floodplain Sediments	Sediment Excavation	2,100	CY	\$13	\$26,000	\$16,000	\$0	\$42,000
MUL145	Mill Ck Impacted Riparian No. 2	Floodplain Sediments	Local Repository Above Flood Level	2,100	CY	\$12	\$26,000	\$15,000	\$5,800	\$47,000
MUL146	Morning No.3	Upland Waste Rock	Low Permeability Cap	1.3	AC	\$190,000	\$250,000	\$150,000	\$31,000	\$430,000
MUL146	Morning No.3	Upland Waste Rock	Excavation	31,000	CY	\$3.40	\$110,000	\$64,000	\$0	\$170,000
MUL149	Mill Ck Impacted Riparian No. 1	Floodplain Sediments	Sediment Excavation	2,800	CY	\$13	\$36,000	\$21,000	\$0	\$57,000
MUL149	Mill Ck Impacted Riparian No. 1	Floodplain Sediments	Local Repository Above Flood Level	2,800	CY	\$12	\$35,000	\$21,000	\$7,800	\$63,000
MUL150	Deadman Gulch Impacted Riparian	Floodplain Sediments	Sediment Excavation	7,600	CY	\$13	\$95,000	\$57,000	\$0	\$150,000
MUL150	Deadman Gulch Impacted Riparian	Floodplain Sediments	Local Repository Above Flood Level	7,600	CY	\$12	\$92,000	\$55,000	\$21,000	\$170,000
MUL153	Deadman Gulch Impacted Riparian	Floodplain Sediments	Sediment Excavation	3,800	CY	\$13	\$48,000	\$29,000	\$0	\$77,000
MUL153	Deadman Gulch Impacted Riparian	Floodplain Sediments	Local Repository Above Flood Level	3,800	CY	\$12	\$46,000	\$28,000	\$10,000	\$85,000
PIPEUG01	Pipeline To Active Treatment	General	Conveyance Pipeline-6"	32,000	LF	\$49	\$1,600,000	\$940,000	\$120,000	\$2,600,000
RHAULUG01	Hauling To Regional Repository	General	Haul to Regional Repository	5,500,000	CY-MI	\$1.12	\$6,200,000	\$3,700,000	\$0	\$9,900,000
THO020	Bull Frog Mine	Floodplain Waste Rock	Excavation	1,400	CY	\$3.40	\$4,700	\$2,800	\$0	\$7,600

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
THO020	Bull Frog Mine	Floodplain Waste Rock	Low Permeability Cap	0.29	AC	\$190,000	\$55,000	\$33,000	\$6,900	\$95,000
UG01-10	Goldhunter Gulch To Boulder Creek	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	1,200	LF	\$100	\$130,000	\$77,000	\$39,000	\$240,000
UG01-10	Goldhunter Gulch To Boulder Creek	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	1,500	LF	\$45	\$70,000	\$42,000	\$21,000	\$130,000
UG01-10	Goldhunter Gulch To Boulder Creek	Bioengineering Actions	Current Deflector Average Cost	28	EA	\$1,700	\$48,000	\$29,000	\$14,000	\$92,000
UG01-10	Goldhunter Gulch To Boulder Creek	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	110,000	SF	\$1.18	\$130,000	\$80,000	\$23,000	\$240,000
UG01-10	Goldhunter Gulch To Boulder Creek	Bioengineering Actions	Current Deflector Sediment Traps	3.1	EA	\$1,700	\$5,400	\$3,200	\$31,000	\$40,000
UG01-11	Boulder Creek To Mill Creek	Bioengineering Actions	Current Deflector Average Cost	8.4	EA	\$1,700	\$15,000	\$8,800	\$4,400	\$28,000
UG01-11	Boulder Creek To Mill Creek	Bioengineering Actions	Current Deflector Sediment Traps	0.90	EA	\$1,700	\$1,600	\$940	\$9,100	\$12,000
UG01-11	Boulder Creek To Mill Creek	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	110,000	SF	\$1.18	\$130,000	\$76,000	\$22,000	\$220,000
UG01-11	Boulder Creek To Mill Creek	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	350	LF	\$100	\$37,000	\$22,000	\$11,000	\$70,000
UG01-11	Boulder Creek To Mill Creek	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	650	LF	\$45	\$29,000	\$18,000	\$8,800	\$56,000
UG01-12	Mill Creek To Gold Creek	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	530,000	SF	\$1.18	\$620,000	\$370,000	\$110,000	\$1,100,000
UG01-12	Mill Creek To Gold Creek	Bioengineering Actions	Current Deflector Average Cost	80	EA	\$1,700	\$140,000	\$83,000	\$42,000	\$260,000
UG01-12	Mill Creek To Gold Creek	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	4,400	LF	\$100	\$460,000	\$280,000	\$140,000	\$880,000
UG01-12	Mill Creek To Gold Creek	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	4,400	LF	\$45	\$200,000	\$120,000	\$60,000	\$380,000
UG01-12	Mill Creek To Gold Creek	Bioengineering Actions	Current Deflector Sediment Traps	9	EA	\$1,700	\$16,000	\$9,400	\$91,000	\$120,000
UG01-13	Gold Creek To St Joe Creek	Bioengineering Actions	Current Deflector Sediment Traps	4.9	EA	\$1,700	\$8,500	\$5,100	\$49,000	\$63,000
UG01-13	Gold Creek To St Joe Creek	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	96,000	SF	\$1.18	\$110,000	\$68,000	\$20,000	\$200,000
UG01-13	Gold Creek To St Joe Creek	Bioengineering Actions	Current Deflector Average Cost	44	EA	\$1,700	\$76,000	\$46,000	\$23,000	\$140,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
UG01-13	Gold Creek To St Joe Creek	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	2,400	LF	\$100	\$250,000	\$150,000	\$76,000	\$480,000
UG01-13	Gold Creek To St Joe Creek	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	2,400	LF	\$45	\$110,000	\$66,000	\$33,000	\$210,000
UG01-14	St Joe Creek To Grouse Gulch	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	470	LF	\$45	\$21,000	\$13,000	\$6,400	\$41,000
UG01-14	St Joe Creek To Grouse Gulch	Bioengineering Actions	Current Deflector Sediment Traps	0.90	EA	\$1,700	\$1,600	\$940	\$9,100	\$12,000
UG01-14	St Joe Creek To Grouse Gulch	Bioengineering Actions	Current Deflector Average Cost	8.5	EA	\$1,700	\$15,000	\$8,900	\$4,400	\$28,000
UG01-14	St Joe Creek To Grouse Gulch	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	470	LF	\$100	\$49,000	\$30,000	\$15,000	\$94,000
UG01-14	St Joe Creek To Grouse Gulch	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	16,000	SF	\$1.18	\$19,000	\$12,000	\$3,400	\$34,000
UG01-15	Grouse Gulch To Ruby Gulch	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	1,700	LF	\$45	\$77,000	\$46,000	\$23,000	\$150,000
UG01-15	Grouse Gulch To Ruby Gulch	Bioengineering Actions	Current Deflector Average Cost	31	EA	\$1,700	\$53,000	\$32,000	\$16,000	\$100,000
UG01-15	Grouse Gulch To Ruby Gulch	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	5,100	SF	\$1.18	\$6,100	\$3,600	\$1,100	\$11,000
UG01-15	Grouse Gulch To Ruby Gulch	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	1,700	LF	\$100	\$180,000	\$110,000	\$53,000	\$340,000
UG01-15	Grouse Gulch To Ruby Gulch	Bioengineering Actions	Current Deflector Sediment Traps	3.4	EA	\$1,700	\$5,900	\$3,500	\$34,000	\$44,000
UG01-16	Ruby Gulch To Trowbridge Gulch	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	2,900	LF	\$45	\$130,000	\$79,000	\$39,000	\$250,000
UG01-16	Ruby Gulch To Trowbridge Gulch	Bioengineering Actions	Current Deflector Sediment Traps	3	EA	\$1,700	\$5,200	\$3,100	\$30,000	\$39,000
UG01-16	Ruby Gulch To Trowbridge Gulch	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	1,600	LF	\$100	\$160,000	\$98,000	\$49,000	\$310,000
UG01-16	Ruby Gulch To Trowbridge Gulch	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	380,000	SF	\$1.18	\$450,000	\$270,000	\$79,000	\$800,000
UG01-16	Ruby Gulch To Trowbridge Gulch	Bioengineering Actions	Current Deflector Average Cost	27	EA	\$1,700	\$47,000	\$28,000	\$14,000	\$89,000
UG01-17	Trowbridge Gulch To Dexter Gulch	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	3,700	LF	\$100	\$390,000	\$230,000	\$120,000	\$730,000
UG01-17	Trowbridge Gulch To Dexter Gulch	Bioengineering Actions	Off-Channel Hydrologic Feature Average Cost	17,000	SY	\$37	\$640,000	\$380,000	\$110,000	\$1,100,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
UG01-17	Trowbridge Gulch To Dexter Gulch	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	490,000	SF	\$1.18	\$580,000	\$350,000	\$100,000	\$1,000,000
UG01-17	Trowbridge Gulch To Dexter Gulch	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	3,700	LF	\$45	\$170,000	\$100,000	\$50,000	\$320,000
UG01-17	Trowbridge Gulch To Dexter Gulch	Bioengineering Actions	Current Deflector Sediment Traps	7.4	EA	\$1,700	\$13,000	\$7,700	\$75,000	\$95,000
UG01-17	Trowbridge Gulch To Dexter Gulch	Bioengineering Actions	Current Deflector Average Cost	67	EA	\$1,700	\$120,000	\$69,000	\$35,000	\$220,000
UG01-18	Dexter Gulch To Watson Gulch	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	3,000	LF	\$100	\$310,000	\$190,000	\$94,000	\$590,000
UG01-18	Dexter Gulch To Watson Gulch	Bioengineering Actions	Current Deflector Sediment Traps	6	EA	\$1,700	\$10,000	\$6,300	\$61,000	\$77,000
UG01-18	Dexter Gulch To Watson Gulch	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	3,000	LF	\$45	\$140,000	\$81,000	\$41,000	\$260,000
UG01-18	Dexter Gulch To Watson Gulch	Bioengineering Actions	Current Deflector Average Cost	54	EA	\$1,700	\$93,000	\$56,000	\$28,000	\$180,000
UG01-19	Watson Gulch To Weyer Gulch, Just Outside Of Wallace	Bioengineering Actions	Current Deflector Average Cost	6.5	EA	\$1,700	\$11,000	\$6,800	\$3,400	\$21,000
UG01-19	Watson Gulch To Weyer Gulch, Just Outside Of Wallace	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	320	LF	\$100	\$33,000	\$20,000	\$9,900	\$63,000
UG01-19	Watson Gulch To Weyer Gulch, Just Outside Of Wallace	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	28,000	SF	\$1.18	\$33,000	\$20,000	\$5,700	\$58,000
UG01-19	Watson Gulch To Weyer Gulch, Just Outside Of Wallace	Bioengineering Actions	Current Deflector Sediment Traps	0.70	EA	\$1,700	\$1,200	\$730	\$7,100	\$9,000
UG01-19	Watson Gulch To Weyer Gulch, Just Outside Of Wallace	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	590	LF	\$45	\$27,000	\$16,000	\$8,000	\$50,000
UG01-19	Watson Gulch To Weyer Gulch, Just Outside Of Wallace	Bioengineering Actions	Off-Channel Hydrologic Feature Average Cost	1,100	SY	\$37	\$40,000	\$24,000	\$7,000	\$71,000
UG01-4	Obrien Gulch To Unnamed Tributary At Mile 29.8	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	100	LF	\$45	\$4,700	\$2,800	\$1,400	\$8,900
UG01-4	Obrien Gulch To Unnamed Tributary At Mile 29.8	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	51	LF	\$100	\$5,300	\$3,200	\$1,600	\$10,000
UG01-5	Unnamed Tributary At Ile 29.8 To Daisy Gulch	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	93,000	SF	\$1.18	\$110,000	\$66,000	\$19,000	\$200,000
UG01-5	Unnamed Tributary At Ile 29.8 To Daisy Gulch	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	1,100	LF	\$45	\$49,000	\$30,000	\$15,000	\$94,000
UG01-5	Unnamed Tributary At Ile 29.8 To Daisy Gulch	Bioengineering Actions	Current Deflector Average Cost	28	EA	\$1,700	\$49,000	\$29,000	\$15,000	\$93,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
UG01-5	Unnamed Tributary At Ile 29.8 To Daisy Gulch	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	1,100	LF	\$100	\$110,000	\$68,000	\$34,000	\$220,000
UG01-5	Unnamed Tributary At Ile 29.8 To Daisy Gulch	Bioengineering Actions	Current Deflector Sediment Traps	3.1	EA	\$1,700	\$5,400	\$3,200	\$31,000	\$40,000
UG01-6	Daisy Gulch To Gentle Anne Gulch	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	2,600	LF	\$45	\$120,000	\$71,000	\$35,000	\$220,000
UG01-6	Daisy Gulch To Gentle Anne Gulch	Bioengineering Actions	Current Deflector Average Cost	27	EA	\$1,700	\$48,000	\$29,000	\$14,000	\$91,000
UG01-6	Daisy Gulch To Gentle Anne Gulch	Bioengineering Actions	Off-Channel Hydrologic Feature Average Cost	2,300	SY	\$37	\$84,000	\$50,000	\$15,000	\$150,000
UG01-6	Daisy Gulch To Gentle Anne Gulch	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	680,000	SF	\$1.18	\$800,000	\$480,000	\$140,000	\$1,400,000
UG01-6	Daisy Gulch To Gentle Anne Gulch	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	1,400	LF	\$100	\$150,000	\$88,000	\$44,000	\$280,000
UG01-6	Daisy Gulch To Gentle Anne Gulch	Bioengineering Actions	Current Deflector Sediment Traps	3	EA	\$1,700	\$5,200	\$3,100	\$30,000	\$39,000
UG01-7	Gentle Anne Gulch To Deadman Gulch	Bioengineering Actions	Current Deflector Sediment Traps	2.6	EA	\$1,700	\$4,500	\$2,700	\$26,000	\$33,000
UG01-7	Gentle Anne Gulch To Deadman Gulch	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	1,500	LF	\$45	\$68,000	\$41,000	\$20,000	\$130,000
UG01-7	Gentle Anne Gulch To Deadman Gulch	Bioengineering Actions	Current Deflector Average Cost	24	EA	\$1,700	\$41,000	\$25,000	\$12,000	\$78,000
UG01-7	Gentle Anne Gulch To Deadman Gulch	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	810	LF	\$100	\$84,000	\$51,000	\$25,000	\$160,000
UG01-7	Gentle Anne Gulch To Deadman Gulch	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	210,000	SF	\$1.18	\$250,000	\$150,000	\$43,000	\$440,000
UG01-8	Deadman Gulch To Willow Creek	Bioengineering Actions	Current Deflector Average Cost	7.3	EA	\$1,700	\$13,000	\$7,600	\$3,800	\$24,000
UG01-8	Deadman Gulch To Willow Creek	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	330	LF	\$100	\$34,000	\$20,000	\$10,000	\$65,000
UG01-8	Deadman Gulch To Willow Creek	Bioengineering Actions	Current Deflector Sediment Traps	0.80	EA	\$1,700	\$1,400	\$840	\$8,100	\$10,000
UG01-8	Deadman Gulch To Willow Creek	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	290	LF	\$45	\$13,000	\$7,800	\$3,900	\$25,000
UG01-9	Willow Creek To Goldhunter Gulch	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	2,700	LF	\$45	\$120,000	\$73,000	\$36,000	\$230,000
UG01-9	Willow Creek To Goldhunter Gulch	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	150,000	SF	\$1.18	\$180,000	\$110,000	\$32,000	\$320,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
UG01-9	Willow Creek To Goldhunter Gulch	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	1,400	LF	\$100	\$150,000	\$90,000	\$45,000	\$290,000
UG01-9	Willow Creek To Goldhunter Gulch	Bioengineering Actions	Current Deflector Average Cost	36	EA	\$1,700	\$62,000	\$37,000	\$19,000	\$120,000
UG01-9	Willow Creek To Goldhunter Gulch	Bioengineering Actions	Current Deflector Sediment Traps	4	EA	\$1,700	\$7,000	\$4,200	\$40,000	\$51,000
WAL013	Granada Mine	Floodplain Waste Rock	Low Permeability Cap	0.34	AC	\$190,000	\$65,000	\$39,000	\$8,100	\$110,000
WAL013	Granada Mine	Floodplain Waste Rock	Excavation	1,600	CY	\$3.40	\$5,600	\$3,300	\$0	\$8,900
WAL038	Sf Cda River Impacted Floodplain: No. 1	Floodplain Sediments	Sediment Excavation	280,000	CY	\$13	\$3,500,000	\$2,100,000	\$0	\$5,600,000
WAL038	Sf Cda River Impacted Floodplain: No. 1	Floodplain Sediments	Regional Repository	280,000	CY	\$11	\$3,100,000	\$1,800,000	\$610,000	\$5,500,000
WAL076	Mary D Claim Workings	Floodplain Waste Rock	Local Repository Above Flood Level	41,000	CY	\$12	\$500,000	\$300,000	\$110,000	\$910,000
WAL076	Mary D Claim Workings	Floodplain Waste Rock	Excavation	41,000	CY	\$3.40	\$140,000	\$83,000	\$0	\$220,000
			Totals fo	r Upper South	Fork V	Vatershed	\$65,000,000	\$39,000,000	\$11,000,000	\$110,000,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
ACCESSCC01	Road Construction Required To Access Remote Source	General	Temporary Access Road	1.5	MI	\$250,000	\$380,000	\$230,000	\$0	\$600,000
ACCESSCC02	Road Construction Required To Access Remote Source	General	Temporary Access Road	1.5	MI	\$250,000	\$380,000	\$230,000	\$0	\$600,000
ACCESSCC03	Road Construction Required To Access Remote Source	General	Temporary Access Road	1	MI	\$250,000	\$250,000	\$150,000	\$0	\$400,000
ACCESSCC04	Road Construction Required To Access Remote Source	General	Temporary Access Road	6	MI	\$250,000	\$1,500,000	\$910,000	\$0	\$2,400,000
ACCESSCC05	Road Construction Required To Access Remote Source	General	Temporary Access Road	0.50	MI	\$250,000	\$130,000	\$76,000	\$22,000	\$220,000
BUR066	Moonlight Mine	Upland Waste Rock	Low Permeability Cap	0.30	AC	\$190,000	\$57,000	\$34,000	\$7,100	\$98,000
BUR066	Moonlight Mine	Upland Waste Rock	Excavation	1,400	CY	\$3.40	\$4,800	\$2,900	\$0	\$7,600
BUR067	Tamarack No.7 (1200 Level)	Upland Waste Rock	Local Repository Above Flood Level	180,000	CY	\$12	\$2,100,000	\$1,300,000	\$480,000	\$3,900,000
BUR067	Tamarack No.7 (1200 Level)	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
BUR067	Tamarack No.7 (1200 Level)	Adit Drainage	Media Filter Treatment Plant	1,400	GPM	\$1,500	\$2,100,000	\$1,600,000	\$4,200,000	\$7,900,000
BUR067	Tamarack No.7 (1200 Level)	Upland Waste Rock	Low Permeability Cap	4.8	AC	\$190,000	\$900,000	\$540,000	\$110,000	\$1,600,000
BUR067	Tamarack No.7 (1200 Level)	Upland Waste Rock	Excavation	180,000	CY	\$3.40	\$600,000	\$360,000	\$0	\$950,000
BUR067	Tamarack No.7 (1200 Level)	Upland Tailings	Excavation	2,500	CY	\$3.40	\$8,500	\$5,100	\$0	\$14,000
BUR067	Tamarack No.7 (1200 Level)	Upland Tailings	Local Repository Above Flood Level	2,500	CY	\$12	\$31,000	\$18,000	\$6,900	\$56,000
BUR068	Headlight Mine	Upland Waste Rock	Local Repository Above Flood Level	12,000	CY	\$12	\$150,000	\$88,000	\$33,000	\$270,000
BUR068	Headlight Mine	Upland Waste Rock	Excavation	12,000	CY	\$3.40	\$41,000	\$24,000	\$0	\$65,000
BUR072	Standard-mammoth No.4	Upland Waste Rock	Low Permeability Cap	1.7	AC	\$190,000	\$330,000	\$200,000	\$41,000	\$570,000
BUR073	Standard-mammoth Campbell Adit	Upland Waste Rock	Excavation	25,000	CY	\$3.40	\$86,000	\$51,000	\$0	\$140,000
BUR073	Standard-mammoth Campbell Adit	Upland Waste Rock	Low Permeability Cap	5.3	AC	\$190,000	\$1,000,000	\$600,000	\$130,000	\$1,700,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
BUR075	Sherman 1000 Level (oreano Adit)	Upland Tailings	Local Repository Above Flood Level	3,500	CY	\$12	\$43,000	\$26,000	\$9,600	\$78,000
BUR075	Sherman 1000 Level (oreano Adit)	Upland Tailings	Excavation	3,500	CY	\$3.40	\$12,000	\$7,100	\$0	\$19,000
BUR087	Hercules No. 3	Upland Waste Rock	Low Permeability Cap	3.9	AC	\$190,000	\$740,000	\$440,000	\$92,000	\$1,300,000
BUR087	Hercules No. 3	Upland Waste Rock	Excavation	13,000	CY	\$3.40	\$43,000	\$26,000	\$0	\$68,000
BUR088	Ajax No.2	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
BUR088	Ajax No.2	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
BUR089	Idaho And Eastern Mine	Upland Waste Rock	Low Permeability Cap	0.20	AC	\$190,000	\$38,000	\$23,000	\$4,800	\$66,000
BUR089	Idaho And Eastern Mine	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
BUR090	Hercules No. 4	Upland Waste Rock	Low Permeability Cap	10	AC	\$190,000	\$2,000,000	\$1,200,000	\$250,000	\$3,400,000
BUR090	Hercules No. 4	Upland Tailings	Excavation	30,000	CY	\$3.40	\$100,000	\$61,000	\$0	\$160,000
BUR090	Hercules No. 4	Upland Tailings	Local Repository Above Flood Level	30,000	CY	\$12	\$370,000	\$220,000	\$82,000	\$670,000
BUR090	Hercules No. 4	Upland Waste Rock	Excavation	11,000	CY	\$3.40	\$37,000	\$22,000	\$0	\$60,000
BUR096	Anchor Mine	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
BUR096	Anchor Mine	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
BUR096	Anchor Mine	Upland Waste Rock	Regrade/Consolidate/Revegetate	1.4	AC	\$71,000	\$100,000	\$60,000	\$13,000	\$170,000
BUR097	Hidden Treasure Mine	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
BUR097	Hidden Treasure Mine	Adit Drainage	Permeable Reactive Trench	96	CY	\$550	\$53,000	\$32,000	\$320,000	\$400,000
BUR097	Hidden Treasure Mine	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.87	AC	\$71,000	\$61,000	\$37,000	\$7,700	\$110,000
BUR098	Hercules No. 5	Upland Waste Rock	Local Repository Above Flood Level	55,000	CY	\$12	\$670,000	\$400,000	\$150,000	\$1,200,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
BUR098	Hercules No. 5	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
BUR098	Hercules No. 5	Adit Drainage	Media Filter Treatment Plant	1,300	GPM	\$1,500	\$2,000,000	\$1,500,000	\$4,000,000	\$7,600,000
BUR098	Hercules No. 5	Upland Waste Rock	Excavation	55,000	CY	\$3.40	\$190,000	\$110,000	\$0	\$300,000
BUR099	Benton Mine	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
BUR099	Benton Mine	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
BUR105	Oom Paul No. 2	Upland Waste Rock	Low Permeability Cap	0.27	AC	\$190,000	\$51,000	\$31,000	\$6,400	\$89,000
BUR105	Oom Paul No. 2	Upland Waste Rock	Excavation	6,500	CY	\$3.40	\$22,000	\$13,000	\$0	\$35,000
BUR107	Ajax No.3	Upland Waste Rock	Low Perm Cap w/Seepage Coll & Trmt	2.3	AC	\$210,000	\$500,000	\$300,000	\$110,000	\$910,000
BUR107	Ajax No.3	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
BUR107	Ajax No.3	Upland Waste Rock	Excavation	28,000	CY	\$3.40	\$95,000	\$57,000	\$0	\$150,000
BUR107	Ajax No.3	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
BUR109	Oom Paul No. 1	Upland Waste Rock	Low Permeability Cap	1.1	AC	\$190,000	\$220,000	\$130,000	\$27,000	\$370,000
BUR109	Oom Paul No. 1	Upland Waste Rock	Excavation	5,500	CY	\$3.40	\$19,000	\$11,000	\$0	\$30,000
BUR112	Gem No.2	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
BUR112	Gem No.2	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
BUR117	Frisco Millsite	Upland Tailings	Excavation	1,800	CY	\$3.40	\$6,100	\$3,700	\$0	\$9,800
BUR117	Frisco Millsite	Upland Waste Rock	Low Permeability Cap	1.1	AC	\$190,000	\$210,000	\$130,000	\$26,000	\$360,000
BUR117	Frisco Millsite	Upland Tailings	Local Repository Above Flood Level	1,800	CY	\$12	\$22,000	\$13,000	\$5,000	\$40,000
BUR118	Frisco No.2 & No.1	Upland Waste Rock	Local Repository Above Flood Level	33,000	CY	\$12	\$400,000	\$240,000	\$91,000	\$740,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
BUR118	Frisco No.2 & No.1	Upland Waste Rock	Excavation	33,000	CY	\$3.40	\$110,000	\$67,000	\$0	\$180,000
BUR121	Black Bear Fraction	Upland Waste Rock	Excavation	21,000	CY	\$3.40	\$70,000	\$42,000	\$0	\$110,000
BUR121	Black Bear Fraction	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
BUR121	Black Bear Fraction	Upland Waste Rock	Low Permeability Cap	2.0	AC	\$190,000	\$380,000	\$230,000	\$48,000	\$660,000
BUR121	Black Bear Fraction	Adit Drainage	Permeable Reactive Trench	17	CY	\$550	\$9,600	\$5,800	\$58,000	\$73,000
BUR122	Flynn Mine	Upland Waste Rock	Low Permeability Cap	1.1	AC	\$190,000	\$210,000	\$130,000	\$27,000	\$370,000
BUR122	Flynn Mine	Upland Waste Rock	Excavation	5,400	CY	\$3.40	\$18,000	\$11,000	\$0	\$29,000
BUR128	Hecla-star Mine & Millsite Complex	Upland Tailings	Local Repository Above Flood Level	43,000	CY	\$12	\$530,000	\$320,000	\$120,000	\$970,000
BUR128	Hecla-star Mine & Millsite Complex	Upland Tailings	Excavation	43,000	CY	\$3.40	\$150,000	\$89,000	\$0	\$240,000
BUR128	Hecla-star Mine & Millsite Complex	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
BUR128	Hecla-star Mine & Millsite Complex	Buildings & Structures	Decon millsite	1	LS	\$130,000	\$130,000	\$76,000	\$6,300	\$210,000
BUR128	Hecla-star Mine & Millsite Complex	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
BUR129	Tiger-poorman Mine	Upland Tailings	Local Repository Above Flood Level	5,300	CY	\$12	\$64,000	\$38,000	\$14,000	\$120,000
BUR129	Tiger-poorman Mine	Upland Tailings	Excavation	5,300	CY	\$3.40	\$18,000	\$11,000	\$0	\$29,000
BUR129	Tiger-poorman Mine	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
BUR129	Tiger-poorman Mine	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
BUR130	Marsh Mine	Upland Waste Rock	Excavation	600	CY	\$3.40	\$2,000	\$1,200	\$0	\$3,300
BUR130	Marsh Mine	Upland Waste Rock	Low Permeability Cap	2.4	AC	\$190,000	\$450,000	\$270,000	\$57,000	\$780,000
BUR132	Gertie Mine	Upland Waste Rock	Low Permeability Cap	1.7	AC	\$190,000	\$320,000	\$190,000	\$40,000	\$550,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
BUR132	Gertie Mine	Upland Waste Rock	Excavation	18,000	CY	\$3.40	\$63,000	\$38,000	\$0	\$100,000
BUR133	Russel Mine	Upland Waste Rock	Local Repository Above Flood Level	5,300	CY	\$12	\$65,000	\$39,000	\$15,000	\$120,000
BUR133	Russel Mine	Upland Waste Rock	Excavation	5,300	CY	\$3.40	\$18,000	\$11,000	\$0	\$29,000
BUR134	Alcides Prospect & Imperial Mine	Upland Waste Rock	Excavation	14,000	CY	\$3.40	\$49,000	\$29,000	\$0	\$78,000
BUR134	Alcides Prospect & Imperial Mine	Upland Waste Rock	Local Repository Above Flood Level	14,000	CY	\$12	\$180,000	\$110,000	\$40,000	\$320,000
BUR135	Sonora Mine	Upland Waste Rock	Low Permeability Cap	0.58	AC	\$190,000	\$110,000	\$66,000	\$14,000	\$190,000
BUR135	Sonora Mine	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
BUR141	Canyon Ck Impacted Floodplain	Floodplain Sediments	Regional Repository	22,000	CY	\$20	\$440,000	\$270,000	\$110,000	\$820,000
BUR141	Canyon Ck Impacted Floodplain	Floodplain Sediments	Sediment Excavation	22,000	CY	\$13	\$280,000	\$170,000	\$0	\$440,000
BUR142	Gem Millsite	Upland Tailings	Local Repository Above Flood Level	2,500	CY	\$12	\$30,000	\$18,000	\$6,700	\$55,000
BUR142	Gem Millsite	Upland Waste Rock	Low Permeability Cap	3.0	AC	\$190,000	\$570,000	\$340,000	\$72,000	\$990,000
BUR142	Gem Millsite	Upland Tailings	Excavation	2,500	CY	\$3.40	\$8,300	\$5,000	\$0	\$13,000
BUR143	Canyon Ck Impacted Riparian	Floodplain Sediments	Regional Repository	32,000	CY	\$20	\$650,000	\$390,000	\$160,000	\$1,200,000
BUR143	Canyon Ck Impacted Riparian	Floodplain Sediments	Sediment Excavation	32,000	CY	\$13	\$400,000	\$240,000	\$0	\$650,000
BUR144	Standard-mammoth Loading Area	Upland Waste Rock	Excavation	7,800	CY	\$3.40	\$27,000	\$16,000	\$0	\$42,000
BUR144	Standard-mammoth Loading Area	Upland Waste Rock	Low Permeability Cap	2.5	AC	\$190,000	\$480,000	\$290,000	\$60,000	\$830,000
BUR145	Oneill Gulch Unnamed Rock Dump	Upland Waste Rock	Excavation	56,000	CY	\$3.40	\$190,000	\$110,000	\$0	\$300,000
BUR145	Oneill Gulch Unnamed Rock Dump	Upland Waste Rock	Local Repository Above Flood Level	56,000	CY	\$12	\$680,000	\$410,000	\$150,000	\$1,200,000
BUR146	Gorge Gulch Impacted Riparian	Floodplain Sediments	Regional Repository	26,000	CY	\$20	\$510,000	\$310,000	\$130,000	\$950,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
BUR146	Gorge Gulch Impacted Riparian	Floodplain Sediments	Sediment Excavation	26,000	CY	\$13	\$320,000	\$190,000	\$0	\$510,000
BUR149	Ajax No.2 Adjacent Rock Dump	Upland Waste Rock	Excavation	2,100	CY	\$3.40	\$7,100	\$4,200	\$0	\$11,000
BUR149	Ajax No.2 Adjacent Rock Dump	Upland Waste Rock	Low Permeability Cap	0.51	AC	\$190,000	\$97,000	\$58,000	\$12,000	\$170,000
BUR150	Canyon Ck Garbage Dump	Floodplain Waste Rock	Excavation	6,500	CY	\$3.40	\$22,000	\$13,000	\$0	\$35,000
BUR150	Canyon Ck Garbage Dump	Floodplain Waste Rock	Low Permeability Cap	1.4	AC	\$190,000	\$260,000	\$160,000	\$32,000	\$450,000
BUR153	Canyon Ck Impacted Floodplain (ccseg02 &	Floodplain Sediments	Regional Repository	7,800	CY	\$20	\$160,000	\$94,000	\$39,000	\$290,000
BUR153	Canyon Ck Impacted Floodplain (ccseg02 &	Floodplain Sediments	Sediment Excavation	7,800	CY	\$13	\$98,000	\$59,000	\$0	\$160,000
BUR166	Unnamed Adit	Upland Waste Rock	Low Permeability Cap	0.33	AC	\$190,000	\$63,000	\$38,000	\$7,800	\$110,000
BUR166	Unnamed Adit	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
BUR176	Unnamed Adit	Upland Waste Rock	Low Permeability Cap	0.56	AC	\$190,000	\$110,000	\$64,000	\$13,000	\$180,000
BUR176	Unnamed Adit	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
BUR177	Joe Matt Mine	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
BUR177	Joe Matt Mine	Upland Waste Rock	Low Permeability Cap	0.68	AC	\$190,000	\$130,000	\$78,000	\$16,000	\$220,000
BUR178	West Hecla Mine	Upland Waste Rock	Low Permeability Cap	0.46	AC	\$190,000	\$88,000	\$53,000	\$11,000	\$150,000
BUR178	West Hecla Mine	Upland Waste Rock	Excavation	2,200	CY	\$3.40	\$7,500	\$4,500	\$0	\$12,000
BUR180	Stanley Mine	Upland Waste Rock	Low Permeability Cap	0.23	AC	\$190,000	\$44,000	\$26,000	\$5,500	\$75,000
BUR180	Stanley Mine	Upland Waste Rock	Excavation	1,100	CY	\$3.40	\$3,700	\$2,200	\$0	\$6,000
BUR185	West Mammoth Mine	Upland Waste Rock	Low Permeability Cap	0.31	AC	\$190,000	\$59,000	\$35,000	\$7,400	\$100,000
BUR185	West Mammoth Mine	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
BUR187	Unnamed Adit	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
BUR187	Unnamed Adit	Upland Waste Rock	Low Permeability Cap	0.25	AC	\$190,000	\$48,000	\$29,000	\$5,900	\$82,000
BUR189	Duluth Mine Canyon Ck	Upland Waste Rock	Low Permeability Cap	0.20	AC	\$190,000	\$38,000	\$23,000	\$4,800	\$66,000
BUR189	Duluth Mine Canyon Ck	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
BUR190	Gem No.3	Adit Drainage	Media Filter Treatment Plant	450	GPM	\$1,500	\$670,000	\$500,000	\$1,300,000	\$2,500,000
BUR190	Gem No.3	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
BUR191	Frisco No.3	Upland Waste Rock	Regrade/Consolidate/Revegetate	1.6	AC	\$71,000	\$110,000	\$66,000	\$14,000	\$190,000
BUR192	Black Bear Millsite	Upland Waste Rock	Excavation	5,400	CY	\$3.40	\$18,000	\$11,000	\$0	\$29,000
BUR192	Black Bear Millsite	Floodplain Tailings	Excavation	3,100	CY	\$3.40	\$11,000	\$6,300	\$0	\$17,000
BUR192	Black Bear Millsite	Upland Waste Rock	Low Permeability Cap	1.1	AC	\$190,000	\$210,000	\$130,000	\$27,000	\$370,000
BUR192	Black Bear Millsite	Floodplain Tailings	Local Repository Above Flood Level	3,100	CY	\$12	\$38,000	\$23,000	\$8,500	\$69,000
BUR204	Unnamed Rock Dump	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
BUR204	Unnamed Rock Dump	Upland Waste Rock	Low Permeability Cap	0.19	AC	\$190,000	\$36,000	\$22,000	\$4,500	\$62,000
CC02-1	Oom Paul No. 1 Mine Site To Gorge Gulch	Bioengineering Actions	Current Deflector Sediment Traps	6.6	EA	\$1,700	\$11,000	\$6,900	\$67,000	\$85,000
CC02-1	Oom Paul No. 1 Mine Site To Gorge Gulch	Bioengineering Actions	Current Deflector Average Cost	60	EA	\$1,700	\$100,000	\$62,000	\$31,000	\$200,000
CC02-1	Oom Paul No. 1 Mine Site To Gorge Gulch	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	3,300	LF	\$45	\$150,000	\$90,000	\$45,000	\$290,000
CC02-1	Oom Paul No. 1 Mine Site To Gorge Gulch	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	670,000	SF	\$1.18	\$790,000	\$470,000	\$140,000	\$1,400,000
CC02-1	Oom Paul No. 1 Mine Site To Gorge Gulch	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	2,000	LF	\$100	\$210,000	\$120,000	\$62,000	\$400,000
CC04-1	Gorge Gulch To West Bell Mine Site	Bioengineering Actions	Current Deflector Sediment Traps	20	EA	\$1,700	\$35,000	\$21,000	\$200,000	\$260,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
CC04-1	Gorge Gulch To West Bell Mine Site	Bioengineering Actions	Current Deflector Average Cost	180	EA	\$1,700	\$310,000	\$190,000	\$94,000	\$590,000
CC04-1	Gorge Gulch To West Bell Mine Site	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	10,000	LF	\$45	\$450,000	\$270,000	\$140,000	\$860,000
CC04-1	Gorge Gulch To West Bell Mine Site	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	6,000	LF	\$100	\$630,000	\$380,000	\$190,000	\$1,200,000
CC04-1	Gorge Gulch To West Bell Mine Site	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	380,000	SF	\$1.18	\$450,000	\$270,000	\$79,000	\$800,000
CC05-1	West Bell Mine Site To Unnamed Creek	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	1,100	LF	\$45	\$50,000	\$30,000	\$15,000	\$96,000
CC05-1	West Bell Mine Site To Unnamed Creek	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	670	LF	\$100	\$70,000	\$42,000	\$21,000	\$130,000
CC05-1	West Bell Mine Site To Unnamed Creek	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	690,000	SF	\$1.18	\$810,000	\$490,000	\$140,000	\$1,400,000
CC05-1	West Bell Mine Site To Unnamed Creek	Bioengineering Actions	Current Deflector Sediment Traps	1	EA	\$1,700	\$1,700	\$1,000	\$10,000	\$13,000
CC05-1	West Bell Mine Site To Unnamed Creek	Bioengineering Actions	Current Deflector Average Cost	10	EA	\$1,700	\$17,000	\$10,000	\$5,200	\$33,000
CC05-2	Unnamed Creek To The South Fork Coeur D'alene River	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	6,700	LF	\$45	\$300,000	\$180,000	\$91,000	\$580,000
CC05-2	Unnamed Creek To The South Fork Coeur D'alene River	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	1,300,000	SF	\$1.18	\$1,600,000	\$960,000	\$280,000	\$2,800,000
CC05-2	Unnamed Creek To The South Fork Coeur D'alene River	Bioengineering Actions	Channel Realignment	90,000	SY	\$37	\$3,300,000	\$2,000,000	\$570,000	\$5,800,000
CC05-2	Unnamed Creek To The South Fork Coeur D'alene River	Bioengineering Actions	Current Deflector Sediment Traps	7	EA	\$1,700	\$12,000	\$7,300	\$71,000	\$90,000
CC05-2	Unnamed Creek To The South Fork Coeur D'alene River	Bioengineering Actions	Current Deflector Average Cost	60	EA	\$1,700	\$100,000	\$63,000	\$31,000	\$200,000
CC05-2	Unnamed Creek To The South Fork Coeur D'alene River	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	4,000	LF	\$100	\$420,000	\$250,000	\$130,000	\$800,000
CSMCC05-1	Rr Embankment Along Ccseg05	Floodplain Artificial Fill	Local Repository Above Flood Level	200,000	CY	\$12	\$2,400,000	\$1,500,000	\$550,000	\$4,500,000
CSMCC05-1	Rr Embankment Along Ccseg05	Floodplain Artificial Fill	Excavation	200,000	CY	\$3.40	\$680,000	\$410,000	\$0	\$1,100,000
HHWPCC04-1	Upland Waste Pile W/human Health Exposure	Upland Waste Rock	Cover waste pile	1	AC	\$54,000	\$54,000	\$33,000	\$6,800	\$93,000
HHWPCC04-2	Upland Waste Pile W/human Health Exposure	Upland Waste Rock	Cover waste pile	1	AC	\$54,000	\$54,000	\$33,000	\$6,800	\$93,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
HHWPCC04-3	Upland Waste Pile W/human Health Exposure	Upland Waste Rock	Cover waste pile	1	AC	\$54,000	\$54,000	\$33,000	\$6,800	\$93,000
LHAULCC02	Hauling To Local Repository	General	Haul to Local Repository, 1/2 Mile One Way	38,000	CY-MI	\$1.12	\$42,000	\$25,000	\$0	\$68,000
LHAULCC03	Hauling To Local Repository	General	Haul to Local Repository, 1/2 Mile One Way	15,000	CY-MI	\$1.12	\$17,000	\$10,000	\$0	\$27,000
LHAULCC04	Hauling To Local Repository	General	Haul to Local Repository, 1/2 Mile One Way	170,000	CY-MI	\$1.12	\$190,000	\$110,000	\$0	\$300,000
LHAULCCO5	Hauling To Local Repository	General	Haul to Local Repository, 1/2 Mile One Way	110,000	CY-MI	\$1.12	\$130,000	\$76,000	\$0	\$200,000
OSB047	Canyon Ck Formosa Reach Svnrt Rehab	Floodplain Sediments	Sediment Excavation	14,000	CY	\$13	\$180,000	\$110,000	\$0	\$280,000
OSB047	Canyon Ck Formosa Reach Svnrt Rehab	Floodplain Sediments	Regional Repository	14,000	CY	\$20	\$280,000	\$170,000	\$70,000	\$520,000
OSB047	Canyon Ck Formosa Reach Svnrt Rehab	Groundwater	Media Filter Treatment Plant	200	GPM	\$1,500	\$290,000	\$220,000	\$590,000	\$1,100,000
OSB047	Canyon Ck Formosa Reach Svnrt Rehab	Floodplain Sediments	Hydraulic Isolation Using Slurry Wall	3,000	LF	\$350	\$1,100,000	\$640,000	\$420,000	\$2,100,000
PIPECC04	Pipeline To Active Treatment	General	Conveyance Pipeline-12"	19,000	LF	\$73	\$1,400,000	\$850,000	\$110,000	\$2,400,000
PIPECC05	Pipeline To Active Treatment	General	Conveyance Pipeline-12"	16,000	LF	\$73	\$1,200,000	\$710,000	\$88,000	\$2,000,000
RHAULCC02	Hauling To Regional Repository	General	Haul to Regional Repository	62,000	CY-MI	\$1.12	\$70,000	\$42,000	\$0	\$110,000
RHAULCC03	Hauling To Regional Repository	General	Haul to Regional Repository	200,000	CY-MI	\$1.12	\$230,000	\$140,000	\$0	\$370,000
RHAULCC04	Hauling To Regional Repository	General	Haul to Regional Repository	270,000	CY-MI	\$1.12	\$300,000	\$180,000	\$0	\$480,000
RHAULCC05	Hauling To Regional Repository	General	Haul to Regional Repository	56,000	CY-MI	\$1.12	\$62,000	\$37,000	\$0	\$100,000
THO023	Unnamed Adit	Upland Waste Rock	Low Permeability Cap	0.19	AC	\$190,000	\$36,000	\$22,000	\$4,500	\$62,000
THO023	Unnamed Adit	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
WAL009	Hecla-star Tailings Ponds	Floodplain Sediments	Hydraulic Isolation Using Slurry Wall	13,000	LF	\$350	\$4,600,000	\$2,800,000	\$1,800,000	\$9,200,000
WAL009	Hecla-star Tailings Ponds	Floodplain Tailings	Tailings Impoundment Closure	62	AC	\$210,000	\$13,000,000	\$7,900,000	\$2,600,000	\$24,000,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
WAL009	Hecla-star Tailings Ponds	Groundwater	Media Filter Treatment Plant	22	GPM	\$1,500	\$34,000	\$25,000	\$67,000	\$130,000
WAL010	Canyon Ck Pond Reach Svnrt Rehab	Floodplain Sediments	Hydraulic Isolation Using Slurry Wall	4,000	LF	\$350	\$1,400,000	\$850,000	\$560,000	\$2,800,000
WAL010	Canyon Ck Pond Reach Svnrt Rehab	Floodplain Sediments	Regional Repository	4,100	CY	\$20	\$82,000	\$49,000	\$20,000	\$150,000
WAL010	Canyon Ck Pond Reach Svnrt Rehab	Floodplain Sediments	Sediment Excavation	4,100	CY	\$13	\$51,000	\$31,000	\$0	\$82,000
WAL010	Canyon Ck Pond Reach Svnrt Rehab	Groundwater	Media Filter Treatment Plant	260	GPM	\$1,500	\$390,000	\$290,000	\$780,000	\$1,500,000
WAL011	Canyon Silver (formosa) Mine	Floodplain Sediments	Regional Repository	8,800	CY	\$20	\$180,000	\$110,000	\$44,000	\$330,000
WAL011	Canyon Silver (formosa) Mine	Floodplain Sediments	Sediment Excavation	8,800	CY	\$13	\$110,000	\$67,000	\$0	\$180,000
WAL011	Canyon Silver (formosa) Mine	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
WAL011	Canyon Silver (formosa) Mine	Upland Tailings	Local Repository Above Flood Level	12,000	CY	\$12	\$140,000	\$85,000	\$32,000	\$260,000
WAL011	Canyon Silver (formosa) Mine	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
WAL011	Canyon Silver (formosa) Mine	Upland Tailings	Excavation	12,000	CY	\$3.40	\$39,000	\$24,000	\$0	\$63,000
WAL039	Standard-mammoth Millsite	Upland Tailings	Excavation	13,000	CY	\$3.40	\$43,000	\$26,000	\$0	\$68,000
WAL039	Standard-mammoth Millsite	Upland Tailings	Local Repository Above Flood Level	13,000	CY	\$12	\$150,000	\$92,000	\$34,000	\$280,000
WAL040	Canyon Ck Impacted Floodplain	Surface Water	Streamflow treatment in treatment ponds	1	LS	\$12,000,000	\$12,000,000	\$7,100,000	\$23,000,000	\$41,000,000
WAL040	Canyon Ck Impacted Floodplain	Groundwater	Media Filter Treatment Plant	130	GPM	\$1,500	\$200,000	\$150,000	\$390,000	\$730,000
WAL040	Canyon Ck Impacted Floodplain	Floodplain Sediments	Sediment Excavation	13,000	CY	\$13	\$160,000	\$98,000	\$0	\$260,000
WAL040	Canyon Ck Impacted Floodplain	Floodplain Sediments	Hydraulic Isolation Using Slurry Wall	2,000	LF	\$350	\$710,000	\$420,000	\$280,000	\$1,400,000
WAL040	Canyon Ck Impacted Floodplain	Floodplain Sediments	Regional Repository	13,000	CY	\$20	\$260,000	\$160,000	\$65,000	\$480,000
WAL041	Canyon Ck Repository Reach Svnrt Rehab	Floodplain Sediments	Regional Repository	16,000	CY	\$20	\$320,000	\$190,000	\$80,000	\$590,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
WAL041	Canyon Ck Repository Reach Svnrt Rehab	Seep	Permeable Reactive Trench	110	CY	\$550	\$60,000	\$36,000	\$360,000	\$460,000
WAL041	Canyon Ck Repository Reach Svnrt Rehab	Groundwater	Media Filter Treatment Plant	330	GPM	\$1,500	\$490,000	\$370,000	\$980,000	\$1,800,000
WAL041	Canyon Ck Repository Reach Svnrt Rehab	Floodplain Sediments	Hydraulic Isolation Using Slurry Wall	5,000	LF	\$350	\$1,800,000	\$1,100,000	\$710,000	\$3,500,000
WAL041	Canyon Ck Repository Reach Svnrt Rehab	Floodplain Sediments	Sediment Excavation	16,000	CY	\$13	\$200,000	\$120,000	\$0	\$320,000
WAL042	Canyon Ck Tailings Repository Svnrt	Floodplain Tailings	Tailings Impoundment Closure	5.2	AC	\$210,000	\$1,100,000	\$660,000	\$220,000	\$2,000,000
WAL081	Wallace Old Private Landfill	Floodplain Artificial Fill	Excavation	2,900	CY	\$3.40	\$9,700	\$5,800	\$0	\$16,000
WAL081	Wallace Old Private Landfill	Floodplain Artificial Fill	Local Repository Above Flood Level	2,900	CY	\$12	\$35,000	\$21,000	\$7,800	\$64,000
	·	·	Tota	ls for Canyon	Creek V	Vatershed	\$84,000,000	\$51,000,000	\$49,000,000	\$180,000,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
ACCESSNM01	Road Construction Required To Access Remote Source	General	Temporary Access Road	0.50	MI	\$250,000	\$130,000	\$76,000	\$0	\$200,000
ACCESSNM02	Road Construction Required To Access Remote Source	General	Temporary Access Road	2.5	MI	\$250,000	\$630,000	\$380,000	\$0	\$1,000,000
ACCESSNM03	Road Construction Required To Access Remote Source	General	Temporary Access Road	0.50	MI	\$250,000	\$130,000	\$76,000	\$0	\$200,000
ACCESSNM04	Road Construction Required To Access Remote Source	General	Temporary Access Road	0.50	MI	\$250,000	\$130,000	\$76,000	\$0	\$200,000
BUR051	Sunset Mine	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
BUR051	Sunset Mine	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
BUR052	Little Sunset Mine	Upland Waste Rock	Low Permeability Cap	0.16	AC	\$190,000	\$30,000	\$18,000	\$3,800	\$53,000
BUR052	Little Sunset Mine	Upland Waste Rock	Excavation	800	CY	\$3.40	\$2,700	\$1,600	\$0	\$4,400
BUR053	Interstate-callahan Mine/rock Dumps	Upland Waste Rock	Low Perm Cap w/Seepage Coll & Trmt	8.5	AC	\$210,000	\$1,800,000	\$1,100,000	\$410,000	\$3,300,000
BUR053	Interstate-callahan Mine/rock Dumps	Upland Waste Rock	Excavation	690,000	CY	\$3.40	\$2,400,000	\$1,400,000	\$0	\$3,800,000
BUR054	Rex No.2 / Sixteen-to-one Mine	Upland Waste Rock	Low Permeability Cap	21	AC	\$190,000	\$4,100,000	\$2,400,000	\$510,000	\$7,000,000
BUR054	Rex No.2 / Sixteen-to-one Mine	Upland Tailings	Tailings Impoundment Closure	2.5	AC	\$210,000	\$540,000	\$320,000	\$110,000	\$960,000
BUR054	Rex No.2 / Sixteen-to-one Mine	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
BUR054	Rex No.2 / Sixteen-to-one Mine	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
BUR055	Interstate Millsite	Upland Tailings	Local Repository Above Flood Level	14,000	CY	\$12	\$170,000	\$100,000	\$38,000	\$310,000
BUR055	Interstate Millsite	Floodplain Sediments	Regional Repository	5,500	CY	\$20	\$110,000	\$67,000	\$28,000	\$210,000
BUR055	Interstate Millsite	Floodplain Sediments	Sediment Excavation	5,500	CY	\$13	\$69,000	\$42,000	\$0	\$110,000
BUR056	Tamarack Rock Dumps	Upland Waste Rock	Regrade/Consolidate/Revegetate	13	AC	\$140,000	\$1,800,000	\$1,100,000	\$230,000	\$3,200,000
BUR058	Tamarack No.3	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
BUR058	Tamarack No.3	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
BUR139	Rex No.1	Upland Waste Rock	Low Permeability Cap	1.3	AC	\$190,000	\$250,000	\$150,000	\$31,000	\$430,000
BUR140	Ninemile Creek Impacted Floodplain	Floodplain Sediments	Regional Repository	10,000	CY	\$20	\$200,000	\$120,000	\$50,000	\$370,000
BUR140	Ninemile Creek Impacted Floodplain	Floodplain Sediments	Sediment Excavation	10,000	CY	\$13	\$130,000	\$76,000	\$0	\$200,000
BUR160	Interstate-callahan Lower Rock Dumps	Upland Waste Rock	Low Perm Cap w/Seepage Coll & Trmt	4.2	AC	\$210,000	\$900,000	\$540,000	\$200,000	\$1,600,000
BUR170	Tamarack 400 Level	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
BUR170	Tamarack 400 Level	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
BUR170	Tamarack 400 Level	Upland Waste Rock	Low Permeability Cap	0.95	AC	\$190,000	\$180,000	\$110,000	\$23,000	\$310,000
BUR171	Tamarack No.5	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
BUR171	Tamarack No.5	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
BUR171	Tamarack No.5	Upland Waste Rock	Low Permeability Cap	0.66	AC	\$190,000	\$130,000	\$75,000	\$16,000	\$220,000
BUR172	Tamarack Unnamed Adit	Upland Waste Rock	Low Permeability Cap	0.43	AC	\$190,000	\$82,000	\$49,000	\$10,000	\$140,000
LHAULNM02	Hauling To Local Repository	General	Haul to Local Repository, 1/2 Mile One Way	7,000	CY-MI	\$1.12	\$7,900	\$4,700	\$0	\$13,000
LHAULNM04	Hauling To Local Repository	General	Haul to Local Repository, 1/2 Mile One Way	26,000	CY-MI	\$1.12	\$29,000	\$17,000	\$0	\$46,000
NM01-1	Headwaters Of East Fork Ninemile Creek To Interstate	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	4,000	LF	\$100	\$420,000	\$250,000	\$130,000	\$800,000
NM01-1	Headwaters Of East Fork Ninemile Creek To Interstate	Bioengineering Actions	Current Deflector Average Cost	48	EA	\$1,700	\$83,000	\$50,000	\$25,000	\$160,000
NM01-1	Headwaters Of East Fork Ninemile Creek To Interstate	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	4,000	LF	\$45	\$180,000	\$110,000	\$55,000	\$350,000
NM01-1	Headwaters Of East Fork Ninemile Creek To Interstate	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	200,000	SF	\$1.18	\$240,000	\$140,000	\$42,000	\$420,000
NM01-1	Headwaters Of East Fork Ninemile Creek To Interstate	Bioengineering Actions	Current Deflector Sediment Traps	5	EA	\$1,700	\$8,700	\$5,200	\$50,000	\$64,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
NM02-1	Interstate Mill Site On The East Fork To The Mainstem	Bioengineering Actions	Current Deflector Sediment Traps	10	EA	\$1,700	\$17,000	\$10,000	\$100,000	\$130,000
NM02-1	Interstate Mill Site On The East Fork To The Mainstem	Bioengineering Actions	Current Deflector Average Cost	90	EA	\$1,700	\$160,000	\$94,000	\$47,000	\$300,000
NM02-1	Interstate Mill Site On The East Fork To The Mainstem	Bioengineering Actions	Off-Channel Hydrologic Feature Average Cost	350	SY	\$37	\$13,000	\$7,600	\$2,200	\$23,000
NM02-1	Interstate Mill Site On The East Fork To The Mainstem	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	7,600	LF	\$45	\$340,000	\$210,000	\$100,000	\$650,000
NM02-1	Interstate Mill Site On The East Fork To The Mainstem	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	7,600	LF	\$100	\$790,000	\$470,000	\$240,000	\$1,500,000
NM02-1	Interstate Mill Site On The East Fork To The Mainstem	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	380,000	SF	\$1.18	\$450,000	\$270,000	\$78,000	\$790,000
NM03-1	Headwaters Of Ninemile Creek To Confluence With	Bioengineering Actions	Off-Channel Hydrologic Feature Average Cost	1,300	SY	\$37	\$48,000	\$29,000	\$8,400	\$85,000
NM03-1	Headwaters Of Ninemile Creek To Confluence With	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	3,200	LF	\$45	\$150,000	\$88,000	\$44,000	\$280,000
NM03-1	Headwaters Of Ninemile Creek To Confluence With	Bioengineering Actions	Current Deflector Sediment Traps	4	EA	\$1,700	\$7,000	\$4,200	\$40,000	\$51,000
NM03-1	Headwaters Of Ninemile Creek To Confluence With	Bioengineering Actions	Current Deflector Average Cost	33	EA	\$1,700	\$57,000	\$34,000	\$17,000	\$110,000
NM03-1	Headwaters Of Ninemile Creek To Confluence With	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	460,000	SF	\$1.18	\$550,000	\$330,000	\$96,000	\$970,000
NM04-1	Mainstem Ninemile Creek To Black Cloud Creek	Bioengineering Actions	Current Deflector Sediment Traps	3	EA	\$1,700	\$5,200	\$3,100	\$30,000	\$39,000
NM04-1	Mainstem Ninemile Creek To Black Cloud Creek	Bioengineering Actions	Current Deflector Average Cost	25	EA	\$1,700	\$43,000	\$26,000	\$13,000	\$83,000
NM04-1	Mainstem Ninemile Creek To Black Cloud Creek	Bioengineering Actions	Channel Realignment	28,000	SY	\$37	\$1,000,000	\$600,000	\$180,000	\$1,800,000
NM04-1	Mainstem Ninemile Creek To Black Cloud Creek	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	2,100	LF	\$100	\$220,000	\$130,000	\$65,000	\$410,000
NM04-1	Mainstem Ninemile Creek To Black Cloud Creek	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	2,100	LF	\$45	\$94,000	\$56,000	\$28,000	\$180,000
NM04-1	Mainstem Ninemile Creek To Black Cloud Creek	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	150,000	SF	\$1.18	\$170,000	\$100,000	\$30,000	\$300,000
NM04-1	Mainstem Ninemile Creek To Black Cloud Creek	Bioengineering Actions	Off-Channel Hydrologic Feature Average Cost	2,000	SY	\$37	\$72,000	\$43,000	\$13,000	\$130,000
NM04-2	Black Cloud Creek To Silver Star Mine	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	720	LF	\$45	\$33,000	\$20,000	\$9,800	\$62,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
NM04-2	Black Cloud Creek To Silver Star Mine	Bioengineering Actions	Channel Realignment	9,600	SY	\$37	\$350,000	\$210,000	\$61,000	\$620,000
NM04-2	Black Cloud Creek To Silver Star Mine	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	140,000	SF	\$1.18	\$170,000	\$100,000	\$30,000	\$300,000
NM04-2	Black Cloud Creek To Silver Star Mine	Bioengineering Actions	Current Deflector Average Cost	9	EA	\$1,700	\$16,000	\$9,400	\$4,700	\$30,000
NM04-2	Black Cloud Creek To Silver Star Mine	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	720	LF	\$100	\$75,000	\$45,000	\$22,000	\$140,000
NM04-2	Black Cloud Creek To Silver Star Mine	Bioengineering Actions	Current Deflector Sediment Traps	1	EA	\$1,700	\$1,700	\$1,000	\$10,000	\$13,000
NM04-3	Silver Star Mine To South Fork Coeur D'alene River	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	670,000	SF	\$1.18	\$790,000	\$470,000	\$140,000	\$1,400,000
NM04-3	Silver Star Mine To South Fork Coeur D'alene River	Bioengineering Actions	Current Deflector Sediment Traps	7	EA	\$1,700	\$12,000	\$7,300	\$71,000	\$90,000
NM04-3	Silver Star Mine To South Fork Coeur D'alene River	Bioengineering Actions	Current Deflector Average Cost	67	EA	\$1,700	\$120,000	\$70,000	\$35,000	\$220,000
NM04-3	Silver Star Mine To South Fork Coeur D'alene River	Bioengineering Actions	Channel Realignment	74,000	SY	\$37	\$2,700,000	\$1,600,000	\$470,000	\$4,800,000
NM04-3	Silver Star Mine To South Fork Coeur D'alene River	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	5,600	LF	\$100	\$580,000	\$350,000	\$170,000	\$1,100,000
NM04-3	Silver Star Mine To South Fork Coeur D'alene River	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	5,600	LF	\$45	\$250,000	\$150,000	\$76,000	\$480,000
OSB032	Duluth Mine Blackcloud Ck	Floodplain Waste Rock	Excavation	4,000	CY	\$3.40	\$14,000	\$8,200	\$0	\$22,000
OSB032	Duluth Mine Blackcloud Ck	Floodplain Waste Rock	Low Permeability Cap	0.84	AC	\$190,000	\$160,000	\$96,000	\$20,000	\$280,000
OSB033	Ruth Mine	Upland Waste Rock	Low Permeability Cap	0.68	AC	\$190,000	\$130,000	\$78,000	\$16,000	\$220,000
OSB033	Ruth Mine	Upland Waste Rock	Excavation	3,200	CY	\$3.40	\$11,000	\$6,500	\$0	\$17,000
OSB038	California No.4	Floodplain Waste Rock	Excavation	6,200	CY	\$3.40	\$21,000	\$13,000	\$0	\$34,000
OSB038	California No.4	Floodplain Waste Rock	Low Permeability Cap	1.3	AC	\$190,000	\$240,000	\$150,000	\$30,000	\$420,000
OSB039	Dayrock Mine	Upland Tailings	Local Repository Above Flood Level	11,000	CY	\$12	\$130,000	\$81,000	\$30,000	\$250,000
OSB039	Dayrock Mine	Upland Tailings	Excavation	11,000	CY	\$3.40	\$37,000	\$22,000	\$0	\$60,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
OSB039	Dayrock Mine	Floodplain Sediments	Regional Repository	11,000	CY	\$20	\$220,000	\$130,000	\$55,000	\$410,000
OSB039	Dayrock Mine	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
OSB039	Dayrock Mine	Buildings & Structures	Decon millsite	1	LS	\$130,000	\$130,000	\$76,000	\$6,300	\$210,000
OSB039	Dayrock Mine	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
OSB039	Dayrock Mine	Floodplain Sediments	Sediment Excavation	11,000	CY	\$13	\$140,000	\$83,000	\$0	\$220,000
OSB040	Ef Ninemile Ck Hecla Rehab	Floodplain Sediments	Regional Repository	17,000	CY	\$20	\$340,000	\$200,000	\$85,000	\$630,000
OSB040	Ef Ninemile Ck Hecla Rehab	Floodplain Sediments	Sediment Excavation	17,000	CY	\$13	\$210,000	\$130,000	\$0	\$340,000
OSB044	Success Mine Rock Dump	Upland Tailings	Excavation	360,000	CY	\$3.40	\$1,200,000	\$730,000	\$0	\$2,000,000
OSB044	Success Mine Rock Dump	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.45	AC	\$71,000	\$32,000	\$19,000	\$4,000	\$55,000
OSB044	Success Mine Rock Dump	Upland Tailings	Regional Repository	360,000	CY	\$20	\$7,300,000	\$4,400,000	\$1,800,000	\$13,000,000
OSB044	Success Mine Rock Dump	Floodplain Sediments	Sediment Excavation	10,000	CY	\$13	\$130,000	\$76,000	\$0	\$200,000
OSB044	Success Mine Rock Dump	Floodplain Sediments	Regional Repository	10,000	CY	\$20	\$200,000	\$120,000	\$50,000	\$370,000
OSB052	Dayrock Mine Tlgs Pile/svnrt Repository	Upland Tailings	Tailings Impoundment Closure	5.6	AC	\$210,000	\$1,200,000	\$710,000	\$240,000	\$2,100,000
OSB056	Ef Ninemile Ck Impacted Riparian	Floodplain Sediments	Regional Repository	1,600	CY	\$20	\$32,000	\$19,000	\$8,100	\$60,000
OSB056	Ef Ninemile Ck Impacted Riparian	Floodplain Sediments	Sediment Excavation	1,600	CY	\$13	\$20,000	\$12,000	\$0	\$32,000
OSB057	Ef Ninemile Ck Impacted Riparian	Floodplain Sediments	Regional Repository	13,000	CY	\$20	\$260,000	\$160,000	\$66,000	\$480,000
OSB057	Ef Ninemile Ck Impacted Riparian	Floodplain Sediments	Sediment Excavation	13,000	CY	\$13	\$160,000	\$98,000	\$0	\$260,000
OSB058	Ef Ninemile Ck Svnrt Rehab	Floodplain Sediments	Sediment Excavation	1,600	CY	\$13	\$20,000	\$12,000	\$0	\$32,000
OSB058	Ef Ninemile Ck Svnrt Rehab	Floodplain Sediments	Regional Repository	1,600	CY	\$20	\$32,000	\$19,000	\$8,100	\$60,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
OSB059	Ninemile Ck Below Dayrock Mine	Floodplain Sediments	Sediment Excavation	33,000	CY	\$13	\$420,000	\$250,000	\$0	\$670,000
OSB059	Ninemile Ck Below Dayrock Mine	Floodplain Sediments	Regional Repository	33,000	CY	\$20	\$670,000	\$400,000	\$170,000	\$1,200,000
OSB060	Ninemile Ck Svnrt Rehab Near Blackcld	Floodplain Sediments	Local Repository Above Flood Level	800	CY	\$12	\$9,800	\$5,900	\$2,200	\$18,000
OSB060	Ninemile Ck Svnrt Rehab Near Blackcld	Floodplain Sediments	Sediment Excavation	800	CY	\$13	\$10,000	\$6,000	\$0	\$16,000
OSB061	Blackcloud Ck Millsite	Upland Tailings	Excavation	7,000	CY	\$3.40	\$24,000	\$14,000	\$0	\$38,000
OSB061	Blackcloud Ck Millsite	Upland Tailings	Local Repository Above Flood Level	7,000	CY	\$12	\$86,000	\$51,000	\$19,000	\$160,000
OSB082	Monarch Mine Blackcloud Ck	Floodplain Waste Rock	Low Permeability Cap	0.54	AC	\$190,000	\$100,000	\$62,000	\$13,000	\$180,000
OSB082	Monarch Mine Blackcloud Ck	Floodplain Waste Rock	Excavation	2,600	CY	\$3.40	\$8,800	\$5,300	\$0	\$14,000
OSB088	Alameda Mine	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
OSB088	Alameda Mine	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
OSB089	Success No.3	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
OSB089	Success No.3	Adit Drainage	Media Filter Treatment Plant	16	GPM	\$1,500	\$24,000	\$18,000	\$47,000	\$88,000
OSB115	Option Mine	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
OSB115	Option Mine	Upland Waste Rock	Low Permeability Cap	0.34	AC	\$190,000	\$65,000	\$39,000	\$8,100	\$110,000
PIPENM02	Pipeline To Active Treatment	General	Conveyance Pipeline-6"	8,200	LF	\$49	\$400,000	\$240,000	\$30,000	\$670,000
PIPENM04	Pipeline To Active Treatment	General	Conveyance Pipeline-6"	16,000	LF	\$49	\$800,000	\$480,000	\$60,000	\$1,300,000
RHAULNM01	Hauling To Regional Repository	General	Haul to Regional Repository	70,000	CY-MI	\$1.12	\$78,000	\$47,000	\$0	\$130,000
RHAULNM02	Hauling To Regional Repository	General	Haul to Regional Repository	1,200,000	CY-MI	\$1.12	\$1,400,000	\$820,000	\$0	\$2,200,000
RHAULNM04	Hauling To Regional Repository	General	Haul to Regional Repository	44,000	CY-MI	\$1.12	\$49,000	\$30,000	\$0	\$79,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost		Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
WAL006	Northside Mine	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
WAL006	Northside Mine	Upland Waste Rock	Low Permeability Cap	0.25	AC	\$190,000	\$48,000	\$29,000	\$5,900	\$82,000
WAL033	Ninemile Ck Potential Tailings Deposit	Floodplain Sediments	Local Repository Above Flood Level	33,000	CY	\$12	\$400,000	\$240,000	\$91,000	\$740,000
WAL033	Ninemile Ck Potential Tailings Deposit	Floodplain Sediments	Sediment Excavation	33,000	CY	\$13	\$420,000	\$250,000	\$0	\$660,000
			Totals fo	or Nine Mile C	reek V	Vatershed	\$42,000,000	\$25,000,000	\$7,300,000	\$74,000,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
ACCESSBC01	Road Construction Required To Access Remote Source	General	Temporary Access Road	3	MI	\$250,000	\$760,000	\$450,000	\$0	\$1,200,000
ACCESSBC03	Road Construction Required To Access Remote Source	General	Temporary Access Road	2	MI	\$250,000	\$500,000	\$300,000	\$0	\$810,000
ACCESSBC04	Road Construction Required To Access Remote Source	General	Temporary Access Road	0.50	MI	\$250,000	\$130,000	\$76,000	\$0	\$200,000
BIG04-2	Wf Big Creek To The Sunshine Mine Site	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	1,100	LF	\$100	\$120,000	\$72,000	\$36,000	\$230,000
BIG04-2	Wf Big Creek To The Sunshine Mine Site	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	1,100	LF	\$45	\$52,000	\$31,000	\$16,000	\$99,000
BIG04-2	Wf Big Creek To The Sunshine Mine Site	Bioengineering Actions	Current Deflector Sediment Traps	2	EA	\$1,700	\$3,500	\$2,100	\$20,000	\$26,000
BIG04-2	Wf Big Creek To The Sunshine Mine Site	Bioengineering Actions	Current Deflector Average Cost	17	EA	\$1,700	\$30,000	\$18,000	\$8,900	\$56,000
BIG04-3	Sunshine Mine Site To The South Fork Coeur D'alene	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	4,700	LF	\$45	\$210,000	\$130,000	\$64,000	\$400,000
BIG04-3	Sunshine Mine Site To The South Fork Coeur D'alene	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	4,700	LF	\$100	\$490,000	\$290,000	\$150,000	\$930,000
BIG04-3	Sunshine Mine Site To The South Fork Coeur D'alene	Bioengineering Actions	Current Deflector Average Cost	120	EA	\$1,700	\$210,000	\$130,000	\$63,000	\$400,000
BIG04-3	Sunshine Mine Site To The South Fork Coeur D'alene	Bioengineering Actions	Current Deflector Sediment Traps	14	EA	\$1,700	\$24,000	\$15,000	\$140,000	\$180,000
BIG04-3	Sunshine Mine Site To The South Fork Coeur D'alene	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	320,000	SF	\$1.18	\$380,000	\$230,000	\$67,000	\$680,000
BIG04-3	Sunshine Mine Site To The South Fork Coeur D'alene	Bioengineering Actions	Off-Channel Hydrologic Feature Average Cost	20,000	SY	\$37	\$710,000	\$430,000	\$120,000	\$1,300,000
KLE025	Sunshine Tailings Pond: No. 2	Floodplain Tailings	Tailings Impoundment Closure	24	AC	\$210,000	\$5,200,000	\$3,100,000	\$1,000,000	\$9,300,000
KLE026	Silver Syndicate	Floodplain Waste Rock	Erosion Protection	12	AC	\$14,000	\$170,000	\$100,000	\$38,000	\$310,000
KLE027	North American Mine	Upland Waste Rock	Excavation	93,000	CY	\$3.40	\$320,000	\$190,000	\$0	\$510,000
KLE027	North American Mine	Upland Waste Rock	Local Repository Above Flood Level	93,000	CY	\$12	\$1,100,000	\$680,000	\$260,000	\$2,100,000
KLE047	Big Ck Impacted Riparian: No. 1	Floodplain Sediments	Regional Repository	3,300	CY	\$11	\$36,000	\$22,000	\$7,300	\$66,000
KLE047	Big Ck Impacted Riparian: No. 1	Floodplain Sediments	Sediment Excavation	3,300	CY	\$13	\$42,000	\$25,000	\$0	\$67,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
KLE053	North American/silver Syndicate Mine	Floodplain Waste Rock	Local Repository Above Flood Level	200,000	CY	\$12	\$2,400,000	\$1,400,000	\$540,000	\$4,400,000
KLE053	North American/silver Syndicate Mine	Floodplain Waste Rock	Excavation	200,000	CY	\$3.40	\$670,000	\$400,000	\$0	\$1,100,000
KLE054	Crescent/hooper Tunnel	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
KLE054	Crescent/hooper Tunnel	Upland Waste Rock	Excavation	160,000	CY	\$3.40	\$540,000	\$330,000	\$0	\$870,000
KLE054	Crescent/hooper Tunnel	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
KLE054	Crescent/hooper Tunnel	Upland Waste Rock	Local Repository Above Flood Level	160,000	CY	\$12	\$2,000,000	\$1,200,000	\$440,000	\$3,600,000
KLE071	Big Ck Impacted Riparian: No. 3	Floodplain Sediments	Regional Repository	39,000	CY	\$11	\$430,000	\$260,000	\$86,000	\$770,000
KLE071	Big Ck Impacted Riparian: No. 3	Floodplain Sediments	Sediment Excavation	39,000	CY	\$13	\$490,000	\$300,000	\$0	\$790,000
KLE073	Big Ck Impacted Riparian: No. 2	Floodplain Sediments	Sediment Excavation	100,000	CY	\$13	\$1,300,000	\$760,000	\$0	\$2,000,000
KLE073	Big Ck Impacted Riparian: No. 2	Floodplain Sediments	Regional Repository	100,000	CY	\$11	\$1,100,000	\$660,000	\$220,000	\$2,000,000
LHAULBIG01	Hauling To Local Repository.	General	Haul to Local Repository, 1/2 Mile One Way	2,300	CY-MI	\$1.12	\$2,600	\$1,500	\$0	\$4,100
LHAULBIG03	Hauling To Local Repository	General	Haul to Local Repository, 1/2 Mile One Way	850	CY-MI	\$1.12	\$950	\$570	\$0	\$1,500
LHAULBIG04	Hauling To Local Repository	General	Haul to Local Repository, 1/2 Mile One Way	230,000	CY-MI	\$1.12	\$260,000	\$160,000	\$0	\$420,000
POL001	Sunshine Consolidated Rockford Group	Floodplain Waste Rock	Erosion Protection	0.34	AC	\$14,000	\$4,700	\$2,800	\$1,100	\$8,600
POL002	Silver Dale And Big Hill Mine	Floodplain Waste Rock	Local Repository Above Flood Level	1,700	CY	\$12	\$21,000	\$12,000	\$4,700	\$38,000
POL002	Silver Dale And Big Hill Mine	Floodplain Waste Rock	Excavation	1,700	CY	\$3.40	\$5,800	\$3,500	\$0	\$9,300
POL008	Globe Mine	Floodplain Waste Rock	Local Repository Above Flood Level	8,200	CY	\$12	\$100,000	\$60,000	\$22,000	\$180,000
POL008	Globe Mine	Floodplain Waste Rock	Excavation	8,200	CY	\$3.40	\$28,000	\$17,000	\$0	\$44,000
POL010	Western Star Mine	Upland Waste Rock	Local Repository Above Flood Level	4,600	CY	\$12	\$56,000	\$33,000	\$13,000	\$100,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
POL010	Western Star Mine	Upland Waste Rock	Excavation	4,600	CY	\$3.40	\$16,000	\$9,300	\$0	\$25,000
POL011	Wolfson Mine	Floodplain Waste Rock	Excavation	3,100	CY	\$3.40	\$11,000	\$6,400	\$0	\$17,000
POL011	Wolfson Mine	Floodplain Waste Rock	Local Repository Above Flood Level	3,100	CY	\$12	\$38,000	\$23,000	\$8,600	\$70,000
POL022	First National Mine	Floodplain Waste Rock	Erosion Protection	0.85	AC	\$14,000	\$12,000	\$7,100	\$2,700	\$22,000
POL044	Unnamed Prospect	Upland Waste Rock	Erosion Protection	0.30	AC	\$14,000	\$4,200	\$2,500	\$940	\$7,600
POL052	Lucky Boy Mine	Floodplain Waste Rock	Excavation	4,600	CY	\$3.40	\$16,000	\$9,400	\$0	\$25,000
POL052	Lucky Boy Mine	Floodplain Waste Rock	Local Repository Above Flood Level	4,600	CY	\$12	\$56,000	\$34,000	\$13,000	\$100,000
POL066	Unnamed Adit	Upland Waste Rock	Excavation	200	CY	\$3.40	\$680	\$410	\$0	\$1,100
POL066	Unnamed Adit	Upland Waste Rock	Local Repository Above Flood Level	200	CY	\$12	\$2,400	\$1,500	\$550	\$4,500
POL067	Unnamed Adit	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
POL067	Unnamed Adit	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
POL068	Unnamed Adit	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.20	AC	\$71,000	\$14,000	\$8,500	\$1,800	\$24,000
RHAULBIG04	Hauling To Regional Repository	General	Haul to Regional Repository	1,000,000	CY-MI	\$1.12	\$1,100,000	\$670,000	\$0	\$1,800,000
				Totals for Big	Creek V	Vatershed	\$21,000,000	\$13,000,000	\$3,400,000	\$37,000,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
ACCESSMC02	Road Construction Required To Access Remote Source	General	Temporary Access Road	1	MI	\$250,000	\$250,000	\$150,000	\$0	\$400,000
KLE008	Maine-standard Mine	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.65	AC	\$140,000	\$90,000	\$54,000	\$11,000	\$160,000
KLE014	Royal Anne Mine	Upland Waste Rock	Regional Repository	200	CY	\$11	\$2,200	\$1,300	\$440	\$3,900
KLE014	Royal Anne Mine	Upland Waste Rock	Excavation	200	CY	\$3.40	\$680	\$410	\$0	\$1,100
KLE041	Moon Ck Impacted Riparian	Floodplain Sediments	Regional Repository	3,300	CY	\$11	\$36,000	\$22,000	\$7,200	\$65,000
KLE041	Moon Ck Impacted Riparian	Floodplain Sediments	Sediment Excavation	3,300	CY	\$13	\$42,000	\$25,000	\$0	\$67,000
KLE061	Unnamed Tunnel	Floodplain Waste Rock	Excavation	200	CY	\$3.40	\$680	\$410	\$0	\$1,100
KLE061	Unnamed Tunnel	Floodplain Waste Rock	Regional Repository	200	CY	\$11	\$2,200	\$1,300	\$440	\$3,900
KLE063	Unnamed Adit	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.15	AC	\$140,000	\$21,000	\$12,000	\$2,600	\$36,000
KLE064	Unnamed Adit	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.13	AC	\$140,000	\$18,000	\$11,000	\$2,300	\$31,000
KLE065	Unnamed Adits	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.23	AC	\$140,000	\$32,000	\$19,000	\$4,000	\$55,000
MC01-2	Unnamed Tributary At Mile 1.8 To Mainstem Mook Creek	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	1,500	LF	\$100	\$160,000	\$96,000	\$48,000	\$300,000
MC01-2	Unnamed Tributary At Mile 1.8 To Mainstem Mook Creek	Bioengineering Actions	Current Deflector Sediment Traps	4	EA	\$1,700	\$7,000	\$4,200	\$40,000	\$51,000
MC01-2	Unnamed Tributary At Mile 1.8 To Mainstem Mook Creek	Bioengineering Actions	Current Deflector Average Cost	34	EA	\$1,700	\$59,000	\$35,000	\$18,000	\$110,000
MC01-2	Unnamed Tributary At Mile 1.8 To Mainstem Mook Creek	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	120,000	SF	\$1.18	\$140,000	\$82,000	\$24,000	\$240,000
MC01-2	Unnamed Tributary At Mile 1.8 To Mainstem Mook Creek	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	1,500	LF	\$45	\$69,000	\$42,000	\$21,000	\$130,000
MC02-2	Unnamed Tributary At Mile 2.8 To Confluence With Wf	Bioengineering Actions	Current Deflector Average Cost	60	EA	\$1,700	\$100,000	\$63,000	\$31,000	\$200,000
MC02-2	Unnamed Tributary At Mile 2.8 To Confluence With Wf	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	330,000	SF	\$1.18	\$400,000	\$240,000	\$69,000	\$700,000
MC02-2	Unnamed Tributary At Mile 2.8 To Confluence With Wf	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	1,300	LF	\$100	\$140,000	\$84,000	\$42,000	\$270,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
MC02-2	Unnamed Tributary At Mile 2.8 To Confluence With Wf	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	1,300	LF	\$45	\$61,000	\$36,000	\$18,000	\$110,000
MC02-2	Unnamed Tributary At Mile 2.8 To Confluence With Wf	Bioengineering Actions	Current Deflector Sediment Traps	7	EA	\$1,700	\$12,000	\$7,300	\$71,000	\$90,000
MC02-3	Wf Confluence To Unnamed Tributary At Mile 1.2	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	1,100	LF	\$100	\$120,000	\$70,000	\$35,000	\$220,000
MC02-3	Wf Confluence To Unnamed Tributary At Mile 1.2	Bioengineering Actions	Current Deflector Average Cost	25	EA	\$1,700	\$43,000	\$26,000	\$13,000	\$83,000
MC02-3	Wf Confluence To Unnamed Tributary At Mile 1.2	Bioengineering Actions	Current Deflector Sediment Traps	3	EA	\$1,700	\$5,200	\$3,100	\$30,000	\$39,000
MC02-3	Wf Confluence To Unnamed Tributary At Mile 1.2	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	170,000	SF	\$1.18	\$200,000	\$120,000	\$35,000	\$350,000
MC02-3	Wf Confluence To Unnamed Tributary At Mile 1.2	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	1,100	LF	\$45	\$51,000	\$30,000	\$15,000	\$96,000
MC02-4	Unnamed Tributary At Mile 1.2 To South Fork Coeur	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	870	LF	\$45	\$39,000	\$24,000	\$12,000	\$75,000
MC02-4	Unnamed Tributary At Mile 1.2 To South Fork Coeur	Bioengineering Actions	Current Deflector Average Cost	26	EA	\$1,700	\$45,000	\$27,000	\$14,000	\$86,000
MC02-4	Unnamed Tributary At Mile 1.2 To South Fork Coeur	Bioengineering Actions	Current Deflector Sediment Traps	3	EA	\$1,700	\$5,200	\$3,100	\$30,000	\$39,000
MC02-4	Unnamed Tributary At Mile 1.2 To South Fork Coeur	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	150,000	SF	\$1.18	\$170,000	\$100,000	\$30,000	\$300,000
MC02-4	Unnamed Tributary At Mile 1.2 To South Fork Coeur	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	580	LF	\$100	\$61,000	\$36,000	\$18,000	\$120,000
RHAULMN01	Hauling To Regional Repository	General	Haul to Regional Repository	1,400	CY-MI	\$1.12	\$1,600	\$940	\$0	\$2,500
RHAULMN02	Hauling To Regional Repository	General	Haul to Regional Repository	28,000	CY-MI	\$1.12	\$31,000	\$19,000	\$0	\$50,000
			То	tals for Moon (Creek W	Vatershed	\$2,400,000	\$1,400,000	\$640,000	\$4,500,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
ACCESSMG01	Road Construction Required To Access Remote Source	General	Temporary Access Road	16	MI	\$250,000	\$4,000,000	\$2,400,000	\$0	\$6,500,000
ACCESSMG02	Road Construction Required To Access Remote Source	General	Temporary Access Road	2.5	MI	\$250,000	\$630,000	\$380,000	\$0	\$1,000,000
HHWPMG01-1	Upland Waste Pile W/human Health Exposure	Upland Waste Rock	Cover waste pile	1	AC	\$54,000	\$54,000	\$33,000	\$6,800	\$93,000
HHWPMG01-2	Upland Waste Pile W/human Health Exposure	Upland Waste Rock	Cover waste pile	1	AC	\$54,000	\$54,000	\$33,000	\$6,800	\$93,000
HHWPMG01-3	Upland Waste Pile W/human Health Exposure	Upland Waste Rock	Cover waste pile	1	AC	\$54,000	\$54,000	\$33,000	\$6,800	\$93,000
HHWPMG01-4	Upland Waste Pile W/human Health Exposure	Upland Waste Rock	Cover waste pile	1	AC	\$54,000	\$54,000	\$33,000	\$6,800	\$93,000
HHWPMG01-5	Upland Waste Pile W/human Health Exposure	Upland Waste Rock	Cover waste pile	1	AC	\$54,000	\$54,000	\$33,000	\$6,800	\$93,000
KLE011	Silver Crescent Tailings (the Kle011 Source Area Is	Upland Tailings	Tailings Impoundment Closure	7.9	AC	\$210,000	\$1,700,000	\$1,000,000	\$340,000	\$3,000,000
KLE016	Syndicate Mining & Exploration Co.	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
KLE016	Syndicate Mining & Exploration Co.	Upland Waste Rock	Low Permeability Cap	0.62	AC	\$190,000	\$120,000	\$71,000	\$15,000	\$200,000
KLE020	New Hilarity Mine	Upland Waste Rock	Low Permeability Cap	1.5	AC	\$190,000	\$280,000	\$170,000	\$35,000	\$490,000
KLE020	New Hilarity Mine	Upland Waste Rock	Excavation	7,200	CY	\$3.40	\$24,000	\$15,000	\$0	\$39,000
KLE021	Alhambra Mine	Upland Waste Rock	Low Permeability Cap	0.65	AC	\$190,000	\$120,000	\$74,000	\$15,000	\$210,000
KLE021	Alhambra Mine	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
KLE023	Pioneer Mines Inc. Property	Upland Waste Rock	Low Permeability Cap	1.2	AC	\$190,000	\$220,000	\$130,000	\$27,000	\$380,000
KLE023	Pioneer Mines Inc. Property	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
KLE033	Polaris Mine	Upland Waste Rock	Low Permeability Cap	1.6	AC	\$190,000	\$300,000	\$180,000	\$38,000	\$530,000
KLE033	Polaris Mine	Upland Waste Rock	Excavation	5,000	CY	\$3.40	\$17,000	\$10,000	\$0	\$27,000
KLE034	Silver Dollar Mine	Floodplain Waste Rock	Low Permeability Cap	2.3	AC	\$190,000	\$440,000	\$260,000	\$54,000	\$750,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
KLE034	Silver Dollar Mine	Floodplain Waste Rock	Excavation	4,400	CY	\$3.40	\$15,000	\$9,000	\$0	\$24,000
KLE035	Silver Summit Mine	Floodplain Waste Rock	Excavation	60,000	CY	\$3.40	\$200,000	\$120,000	\$0	\$330,000
KLE035	Silver Summit Mine	Buildings & Structures	Decon millsite	1	LS	\$130,000	\$130,000	\$76,000	\$6,300	\$210,000
KLE035	Silver Summit Mine	Floodplain Waste Rock	Low Permeability Cap	13	AC	\$190,000	\$2,600,000	\$1,500,000	\$320,000	\$4,400,000
KLE040	Sf Cda River Impacted Floodplain: No. 5	Floodplain Sediments	Hydraulic Isolation Using Slurry Wall	7,000	LF	\$350	\$2,500,000	\$1,500,000	\$990,000	\$4,900,000
KLE040	Sf Cda River Impacted Floodplain: No. 5	Groundwater	Media Filter Treatment Plant	9.0	GPM	\$1,500	\$13,000	\$10,000	\$27,000	\$50,000
KLE042	Moon Ck Pond At Mouth	Floodplain Tailings	Local Repository Above Flood Level	13,000	CY	\$12	\$160,000	\$95,000	\$36,000	\$290,000
KLE042	Moon Ck Pond At Mouth	Floodplain Sediments	Sediment Excavation	50,000	CY	\$13	\$630,000	\$380,000	\$0	\$1,000,000
KLE042	Moon Ck Pond At Mouth	Floodplain Sediments	Regional Repository	50,000	CY	\$11	\$550,000	\$330,000	\$110,000	\$990,000
KLE042	Moon Ck Pond At Mouth	Floodplain Tailings	Excavation	13,000	CY	\$3.40	\$44,000	\$27,000	\$0	\$71,000
KLE048	Sf Cda River Svnrt Rehab	Floodplain Sediments	Hydraulic Isolation Using Slurry Wall	3,000	LF	\$350	\$1,100,000	\$640,000	\$420,000	\$2,100,000
KLE048	Sf Cda River Svnrt Rehab	Groundwater	Media Filter Treatment Plant	150	GPM	\$1,500	\$230,000	\$170,000	\$460,000	\$870,000
KLE048	Sf Cda River Svnrt Rehab	Floodplain Sediments	Sediment Excavation	55,000	CY	\$13	\$690,000	\$420,000	\$0	\$1,100,000
KLE048	Sf Cda River Svnrt Rehab	Floodplain Sediments	Regional Repository	55,000	CY	\$11	\$600,000	\$360,000	\$120,000	\$1,100,000
KLE049	Sf Cda River Impacted Riparian (midgradseg01 &	Floodplain Sediments	Hydraulic Isolation Using Slurry Wall	2,500	LF	\$350	\$880,000	\$530,000	\$350,000	\$1,800,000
KLE049	Sf Cda River Impacted Riparian (midgradseg01 &	Groundwater	Media Filter Treatment Plant	130	GPM	\$1,500	\$200,000	\$150,000	\$390,000	\$730,000
KLE049	Sf Cda River Impacted Riparian (midgradseg01 &	Floodplain Sediments	Regional Repository	130,000	CY	\$11	\$1,400,000	\$860,000	\$290,000	\$2,600,000
KLE049	Sf Cda River Impacted Riparian (midgradseg01 &	Floodplain Sediments	Sediment Excavation	130,000	CY	\$13	\$1,600,000	\$980,000	\$0	\$2,600,000
KLE051	Florence Mine	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
KLE051	Florence Mine	Upland Waste Rock	Low Permeability Cap	0.33	AC	\$190,000	\$63,000	\$38,000	\$7,800	\$110,000
KLE062	Osburn Flats Bureau Of Mines Testplots	Floodplain Sediments	Sediment Excavation	26,000	CY	\$13	\$330,000	\$200,000	\$0	\$520,000
KLE062	Osburn Flats Bureau Of Mines Testplots	Floodplain Sediments	Regional Repository	26,000	CY	\$11	\$290,000	\$170,000	\$57,000	\$510,000
KLE066	Rhode Island No.1 & No.2 & Assoc.adits	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
KLE066	Rhode Island No.1 & No.2 & Assoc.adits	Upland Waste Rock	Low Permeability Cap	0.38	AC	\$190,000	\$72,000	\$43,000	\$9,000	\$120,000
KLE067	St. Joe No.4	Upland Waste Rock	Excavation	5,500	CY	\$3.40	\$19,000	\$11,000	\$0	\$30,000
KLE067	St. Joe No.4	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
KLE067	St. Joe No.4	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
KLE067	St. Joe No.4	Upland Waste Rock	Low Permeability Cap	0.20	AC	\$190,000	\$38,000	\$23,000	\$4,800	\$66,000
KLE068	Unnamed Adit (st. Joe No. 2)	Upland Waste Rock	Local Repository Above Flood Level	14,000	CY	\$12	\$170,000	\$100,000	\$38,000	\$310,000
KLE068	Unnamed Adit (st. Joe No. 2)	Upland Waste Rock	Excavation	14,000	CY	\$3.40	\$48,000	\$29,000	\$0	\$76,000
KLE069	St. Joe No.3	Upland Waste Rock	Excavation	650	CY	\$3.40	\$2,200	\$1,300	\$0	\$3,500
KLE069	St. Joe No.3	Upland Waste Rock	Low Permeability Cap	0.42	AC	\$190,000	\$80,000	\$48,000	\$10,000	\$140,000
KLE070	Unnamed Adit	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
KLE070	Unnamed Adit	Upland Waste Rock	Low Permeability Cap	0.42	AC	\$190,000	\$80,000	\$48,000	\$10,000	\$140,000
KLE074	Coeur D Alene Millsite	Buildings & Structures	Decon millsite	1	LS	\$130,000	\$130,000	\$76,000	\$6,300	\$210,000
KLE074	Coeur D Alene Millsite	Upland Tailings	Local Repository Above Flood Level	14,000	CY	\$12	\$170,000	\$100,000	\$38,000	\$310,000
KLE074	Coeur D Alene Millsite	Upland Tailings	Excavation	14,000	CY	\$3.40	\$48,000	\$29,000	\$0	\$76,000
KLE075	Silver Summit Millsite (polaris)	Upland Tailings	Local Repository Above Flood Level	4,000	CY	\$12	\$49,000	\$29,000	\$11,000	\$89,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
KLE075	Silver Summit Millsite (polaris)	Upland Tailings	Excavation	4,000	CY	\$3.40	\$14,000	\$8,200	\$0	\$22,000
KLW001	Sf Cda River Below Pinehurst Narrows Dam	Floodplain Sediments	Regional Repository	280,000	CY	\$11	\$3,100,000	\$1,800,000	\$610,000	\$5,500,000
KLW001	Sf Cda River Below Pinehurst Narrows Dam	Floodplain Sediments	Sediment Excavation	280,000	CY	\$13	\$3,500,000	\$2,100,000	\$0	\$5,600,000
KLW061	Bh No. 2	Upland Waste Rock	Regrade/Consolidate/Revegetate	14	AC	\$140,000	\$1,900,000	\$1,200,000	\$240,000	\$3,300,000
KLW062	Bluebird Mine & Guy Cave Area	Upland Waste Rock	Regrade/Consolidate/Revegetate	2.1	AC	\$140,000	\$300,000	\$180,000	\$37,000	\$510,000
KLW070	Milo Ck Impacted Riparian: No. 1	Floodplain Sediments	Sediment Excavation	9,400	CY	\$13	\$120,000	\$71,000	\$0	\$190,000
KLW070	Milo Ck Impacted Riparian: No. 1	Floodplain Sediments	Regional Repository	9,400	CY	\$11	\$100,000	\$61,000	\$20,000	\$180,000
KLW095	Phil Sheridan Mine	Upland Waste Rock	Regrade/Consolidate/Revegetate	0.82	AC	\$140,000	\$110,000	\$68,000	\$14,000	\$200,000
LHAULMG01	Hauling To Local Repository	General	Haul to Local Repository, 1/2 Mile One Way	47,000	CY-MI	\$1.12	\$53,000	\$32,000	\$0	\$84,000
MG01-1	Canyon Creek To Ninemile Creek	Bioengineering Actions	Current Deflector Average Cost	26	EA	\$1,700	\$45,000	\$27,000	\$14,000	\$86,000
MG01-1	Canyon Creek To Ninemile Creek	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	900	LF	\$100	\$94,000	\$56,000	\$28,000	\$180,000
MG01-1	Canyon Creek To Ninemile Creek	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	35,000	SF	\$1.18	\$41,000	\$25,000	\$7,200	\$73,000
MG01-1	Canyon Creek To Ninemile Creek	Bioengineering Actions	Current Deflector Sediment Traps	3	EA	\$1,700	\$5,200	\$3,100	\$30,000	\$39,000
MG01-10	W.f. Rosebud Creek To Unnamed Creek At Rm 14.0	Bioengineering Actions	Current Deflector Sediment Traps	1	EA	\$1,700	\$1,700	\$1,000	\$10,000	\$13,000
MG01-10	W.f. Rosebud Creek To Unnamed Creek At Rm 14.0	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	400	LF	\$45	\$18,000	\$11,000	\$5,400	\$34,000
MG01-10	W.f. Rosebud Creek To Unnamed Creek At Rm 14.0	Bioengineering Actions	Current Deflector Average Cost	4	EA	\$1,700	\$7,000	\$4,200	\$2,100	\$13,000
MG01-10	W.f. Rosebud Creek To Unnamed Creek At Rm 14.0	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	400	LF	\$100	\$42,000	\$25,000	\$13,000	\$79,000
MG01-10	W.f. Rosebud Creek To Unnamed Creek At Rm 14.0	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	51,000	SF	\$1.18	\$61,000	\$36,000	\$11,000	\$110,000
MG01-11	Unnamed Creek At Rm 14.0 To Unnamed Creek At Rm 13.7	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	290,000	SF	\$1.18	\$340,000	\$200,000	\$59,000	\$600,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
MG01-11	Unnamed Creek At Rm 14.0 To Unnamed Creek At Rm 13.7	Bioengineering Actions	Current Deflector Sediment Traps	1	EA	\$1,700	\$1,700	\$1,000	\$10,000	\$13,000
MG01-11	Unnamed Creek At Rm 14.0 To Unnamed Creek At Rm 13.7	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	1,200	LF	\$45	\$52,000	\$31,000	\$16,000	\$99,000
MG01-11	Unnamed Creek At Rm 14.0 To Unnamed Creek At Rm 13.7	Bioengineering Actions	Current Deflector Average Cost	7	EA	\$1,700	\$12,000	\$7,300	\$3,700	\$23,000
MG01-11	Unnamed Creek At Rm 14.0 To Unnamed Creek At Rm 13.7	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	1,200	LF	\$100	\$120,000	\$72,000	\$36,000	\$230,000
MG01-12	Unnamed Creek At Rm 13.7 To Unnamed Creek At Rm 13.1	Bioengineering Actions	Off-Channel Hydrologic Feature Average Cost	54,000	SY	\$37	\$2,000,000	\$1,200,000	\$350,000	\$3,500,000
MG01-12	Unnamed Creek At Rm 13.7 To Unnamed Creek At Rm 13.1	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	410,000	SF	\$1.18	\$490,000	\$290,000	\$86,000	\$870,000
MG01-12	Unnamed Creek At Rm 13.7 To Unnamed Creek At Rm 13.1	Bioengineering Actions	Current Deflector Sediment Traps	2	EA	\$1,700	\$3,500	\$2,100	\$20,000	\$26,000
MG01-12	Unnamed Creek At Rm 13.7 To Unnamed Creek At Rm 13.1	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	1,100	LF	\$45	\$50,000	\$30,000	\$15,000	\$95,000
MG01-12	Unnamed Creek At Rm 13.7 To Unnamed Creek At Rm 13.1	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	1,100	LF	\$100	\$120,000	\$69,000	\$35,000	\$220,000
MG01-12	Unnamed Creek At Rm 13.7 To Unnamed Creek At Rm 13.1	Bioengineering Actions	Current Deflector Average Cost	13	EA	\$1,700	\$23,000	\$14,000	\$6,800	\$43,000
MG01-13	Unnamed Creek At Rm 13.1 To Unnamed Creek At Rm 12.3	Bioengineering Actions	Channel Realignment	30,000	SY	\$37	\$1,100,000	\$660,000	\$190,000	\$2,000,000
MG01-13	Unnamed Creek At Rm 13.1 To Unnamed Creek At Rm 12.3	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	2,500	LF	\$100	\$260,000	\$160,000	\$78,000	\$500,000
MG01-13	Unnamed Creek At Rm 13.1 To Unnamed Creek At Rm 12.3	Bioengineering Actions	Current Deflector Average Cost	21	EA	\$1,700	\$37,000	\$22,000	\$11,000	\$69,000
MG01-13	Unnamed Creek At Rm 13.1 To Unnamed Creek At Rm 12.3	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	260,000	SF	\$1.18	\$300,000	\$180,000	\$53,000	\$540,000
MG01-13	Unnamed Creek At Rm 13.1 To Unnamed Creek At Rm 12.3	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	2,500	LF	\$45	\$110,000	\$68,000	\$34,000	\$220,000
MG01-13	Unnamed Creek At Rm 13.1 To Unnamed Creek At Rm 12.3	Bioengineering Actions	Off-Channel Hydrologic Feature Average Cost	84,000	SY	\$37	\$3,100,000	\$1,800,000	\$540,000	\$5,400,000
MG01-13	Unnamed Creek At Rm 13.1 To Unnamed Creek At Rm 12.3	Bioengineering Actions	Current Deflector Sediment Traps	2	EA	\$1,700	\$3,500	\$2,100	\$20,000	\$26,000
MG01-14	Unnamed Creek At Rm 12.3 To Unnamed Creek At Rm 12.0	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	150,000	SF	\$1.18	\$180,000	\$110,000	\$31,000	\$320,000
MG01-14	Unnamed Creek At Rm 12.3 To Unnamed Creek At Rm 12.0	Bioengineering Actions	Channel Realignment	10,000	SY	\$37	\$370,000	\$220,000	\$65,000	\$660,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
MG01-14	Unnamed Creek At Rm 12.3 To Unnamed Creek At Rm 12.0	Bioengineering Actions	Current Deflector Average Cost	7	EA	\$1,700	\$12,000	\$7,300	\$3,700	\$23,000
MG01-14	Unnamed Creek At Rm 12.3 To Unnamed Creek At Rm 12.0	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	760	LF	\$100	\$79,000	\$48,000	\$24,000	\$150,000
MG01-14	Unnamed Creek At Rm 12.3 To Unnamed Creek At Rm 12.0	Bioengineering Actions	Off-Channel Hydrologic Feature Average Cost	4,200	SY	\$37	\$150,000	\$92,000	\$27,000	\$270,000
MG01-14	Unnamed Creek At Rm 12.3 To Unnamed Creek At Rm 12.0	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	760	LF	\$45	\$34,000	\$21,000	\$10,000	\$65,000
MG01-14	Unnamed Creek At Rm 12.3 To Unnamed Creek At Rm 12.0	Bioengineering Actions	Current Deflector Sediment Traps	1	EA	\$1,700	\$1,700	\$1,000	\$10,000	\$13,000
MG01-15	Unnamed Creek At Rm 12.0 To Big Creek	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	39,000	SF	\$1.18	\$46,000	\$27,000	\$8,000	\$81,000
MG01-15	Unnamed Creek At Rm 12.0 To Big Creek	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	390	LF	\$45	\$18,000	\$11,000	\$5,300	\$33,000
MG01-15	Unnamed Creek At Rm 12.0 To Big Creek	Bioengineering Actions	Current Deflector Average Cost	17	EA	\$1,700	\$30,000	\$18,000	\$8,900	\$56,000
MG01-15	Unnamed Creek At Rm 12.0 To Big Creek	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	390	LF	\$100	\$40,000	\$24,000	\$12,000	\$77,000
MG01-15	Unnamed Creek At Rm 12.0 To Big Creek	Bioengineering Actions	Current Deflector Sediment Traps	2	EA	\$1,700	\$3,500	\$2,100	\$20,000	\$26,000
MG01-15	Unnamed Creek At Rm 12.0 To Big Creek	Bioengineering Actions	Off-Channel Hydrologic Feature Average Cost	62,000	SY	\$37	\$2,300,000	\$1,400,000	\$400,000	\$4,000,000
MG01-16	Big Creek To Moon Creek	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	110	LF	\$100	\$11,000	\$6,700	\$3,400	\$21,000
MG01-16	Big Creek To Moon Creek	Bioengineering Actions	Current Deflector Sediment Traps	1	EA	\$1,700	\$1,700	\$1,000	\$10,000	\$13,000
MG01-16	Big Creek To Moon Creek	Bioengineering Actions	Off-Channel Hydrologic Feature Average Cost	10,000	SY	\$37	\$380,000	\$230,000	\$67,000	\$680,000
MG01-16	Big Creek To Moon Creek	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	15,000	SF	\$1.18	\$17,000	\$10,000	\$3,000	\$30,000
MG01-16	Big Creek To Moon Creek	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	110	LF	\$45	\$4,900	\$2,900	\$1,500	\$9,200
MG01-16	Big Creek To Moon Creek	Bioengineering Actions	Current Deflector Average Cost	10	EA	\$1,700	\$17,000	\$10,000	\$5,200	\$33,000
MG01-17	Moon Creek To Unnamed Creek At Rm 9.8	Bioengineering Actions	Channel Realignment	37,000	SY	\$37	\$1,300,000	\$800,000	\$230,000	\$2,400,000
MG01-17	Moon Creek To Unnamed Creek At Rm 9.8	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	2,700	LF	\$45	\$120,000	\$75,000	\$37,000	\$240,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
MG01-17	Moon Creek To Unnamed Creek At Rm 9.8	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	390,000	SF	\$1.18	\$460,000	\$280,000	\$81,000	\$820,000
MG01-17	Moon Creek To Unnamed Creek At Rm 9.8	Bioengineering Actions	Off-Channel Hydrologic Feature Average Cost	15,000	SY	\$37	\$570,000	\$340,000	\$99,000	\$1,000,000
MG01-17	Moon Creek To Unnamed Creek At Rm 9.8	Bioengineering Actions	Current Deflector Average Cost	24	EA	\$1,700	\$42,000	\$25,000	\$13,000	\$79,000
MG01-17	Moon Creek To Unnamed Creek At Rm 9.8	Bioengineering Actions	Current Deflector Sediment Traps	3	EA	\$1,700	\$5,200	\$3,100	\$30,000	\$39,000
MG01-17	Moon Creek To Unnamed Creek At Rm 9.8	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	2,700	LF	\$100	\$290,000	\$170,000	\$86,000	\$540,000
MG01-18	Unnamed Creek At Rm 9.8 To Montgomery Creek	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	1,400	LF	\$45	\$62,000	\$37,000	\$19,000	\$120,000
MG01-18	Unnamed Creek At Rm 9.8 To Montgomery Creek	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	400,000	SF	\$1.18	\$470,000	\$280,000	\$83,000	\$840,000
MG01-18	Unnamed Creek At Rm 9.8 To Montgomery Creek	Bioengineering Actions	Current Deflector Sediment Traps	2	EA	\$1,700	\$3,500	\$2,100	\$20,000	\$26,000
MG01-18	Unnamed Creek At Rm 9.8 To Montgomery Creek	Bioengineering Actions	Current Deflector Average Cost	12	EA	\$1,700	\$21,000	\$13,000	\$6,300	\$40,000
MG01-18	Unnamed Creek At Rm 9.8 To Montgomery Creek	Bioengineering Actions	Off-Channel Hydrologic Feature Average Cost	5,400	SY	\$37	\$200,000	\$120,000	\$35,000	\$350,000
MG01-18	Unnamed Creek At Rm 9.8 To Montgomery Creek	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	1,400	LF	\$100	\$140,000	\$86,000	\$43,000	\$270,000
MG01-18	Unnamed Creek At Rm 9.8 To Montgomery Creek	Bioengineering Actions	Channel Realignment	18,000	SY	\$37	\$670,000	\$400,000	\$120,000	\$1,200,000
MG01-2	Ninemile Creek To Placer Creek	Bioengineering Actions	Current Deflector Sediment Traps	2	EA	\$1,700	\$3,500	\$2,100	\$20,000	\$26,000
MG01-2	Ninemile Creek To Placer Creek	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	800	LF	\$100	\$84,000	\$50,000	\$25,000	\$160,000
MG01-2	Ninemile Creek To Placer Creek	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	98,000	SF	\$1.18	\$120,000	\$69,000	\$20,000	\$210,000
MG01-2	Ninemile Creek To Placer Creek	Bioengineering Actions	Current Deflector Average Cost	14	EA	\$1,700	\$24,000	\$15,000	\$7,300	\$46,000
MG01-3	Placer Creek To Daly Gulch	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	150,000	SF	\$1.18	\$180,000	\$110,000	\$31,000	\$310,000
MG01-3	Placer Creek To Daly Gulch	Bioengineering Actions	Current Deflector Average Cost	9	EA	\$1,700	\$16,000	\$9,400	\$4,700	\$30,000
MG01-3	Placer Creek To Daly Gulch	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	1,100	LF	\$100	\$120,000	\$69,000	\$35,000	\$220,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
MG01-3	Placer Creek To Daly Gulch	Bioengineering Actions	Current Deflector Sediment Traps	1	EA	\$1,700	\$1,700	\$1,000	\$10,000	\$13,000
MG01-3	Placer Creek To Daly Gulch	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	1,100	LF	\$45	\$50,000	\$30,000	\$15,000	\$95,000
MG01-4	Daly Gulch To Lake Creek	Bioengineering Actions	Current Deflector Average Cost	26	EA	\$1,700	\$45,000	\$27,000	\$14,000	\$86,000
MG01-4	Daly Gulch To Lake Creek	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	1,200,000	SF	\$1.18	\$1,400,000	\$830,000	\$240,000	\$2,500,000
MG01-4	Daly Gulch To Lake Creek	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	2,500	LF	\$100	\$260,000	\$160,000	\$78,000	\$500,000
MG01-4	Daly Gulch To Lake Creek	Bioengineering Actions	Current Deflector Sediment Traps	3	EA	\$1,700	\$5,200	\$3,100	\$30,000	\$39,000
MG01-4	Daly Gulch To Lake Creek	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	2,500	LF	\$45	\$110,000	\$68,000	\$34,000	\$220,000
MG01-5	Lake Creek To Revenue Gulch	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	800	LF	\$100	\$84,000	\$50,000	\$25,000	\$160,000
MG01-5	Lake Creek To Revenue Gulch	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	26,000	SF	\$1.18	\$31,000	\$19,000	\$5,400	\$55,000
MG01-5	Lake Creek To Revenue Gulch	Bioengineering Actions	Current Deflector Average Cost	6	EA	\$1,700	\$10,000	\$6,300	\$3,100	\$20,000
MG01-5	Lake Creek To Revenue Gulch	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	800	LF	\$45	\$36,000	\$22,000	\$11,000	\$69,000
MG01-5	Lake Creek To Revenue Gulch	Bioengineering Actions	Current Deflector Sediment Traps	1	EA	\$1,700	\$1,700	\$1,000	\$10,000	\$13,000
MG01-6	Revenue Gulch To Dry Gulch	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	390,000	SF	\$1.18	\$460,000	\$270,000	\$80,000	\$810,000
MG01-6	Revenue Gulch To Dry Gulch	Bioengineering Actions	Current Deflector Average Cost	34	EA	\$1,700	\$59,000	\$35,000	\$18,000	\$110,000
MG01-6	Revenue Gulch To Dry Gulch	Bioengineering Actions	Off-Channel Hydrologic Feature Average Cost	22,000	SY	\$37	\$820,000	\$490,000	\$140,000	\$1,500,000
MG01-6	Revenue Gulch To Dry Gulch	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	3,200	LF	\$100	\$330,000	\$200,000	\$99,000	\$630,000
MG01-6	Revenue Gulch To Dry Gulch	Bioengineering Actions	Current Deflector Sediment Traps	4	EA	\$1,700	\$7,000	\$4,200	\$40,000	\$51,000
MG01-6	Revenue Gulch To Dry Gulch	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	3,200	LF	\$45	\$140,000	\$86,000	\$43,000	\$270,000
MG01-7	Dry Gulch To West End Osburn Tailings Pond	Bioengineering Actions	Current Deflector Average Cost	9	EA	\$1,700	\$16,000	\$9,400	\$4,700	\$30,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
MG01-7	Dry Gulch To West End Osburn Tailings Pond	Bioengineering Actions	Off-Channel Hydrologic Feature Average Cost	23,000	SY	\$37	\$860,000	\$510,000	\$150,000	\$1,500,000
MG01-7	Dry Gulch To West End Osburn Tailings Pond	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	330,000	SF	\$1.18	\$390,000	\$230,000	\$68,000	\$690,000
MG01-7	Dry Gulch To West End Osburn Tailings Pond	Bioengineering Actions	Current Deflector Sediment Traps	1	EA	\$1,700	\$1,700	\$1,000	\$10,000	\$13,000
MG01-7	Dry Gulch To West End Osburn Tailings Pond	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	3,600	LF	\$45	\$160,000	\$97,000	\$48,000	\$310,000
MG01-7	Dry Gulch To West End Osburn Tailings Pond	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	3,600	LF	\$100	\$370,000	\$220,000	\$110,000	\$710,000
MG01-8	West End Tailings Ponds To Twomile Creek	Bioengineering Actions	Current Deflector Average Cost	21	EA	\$1,700	\$37,000	\$22,000	\$11,000	\$69,000
MG01-8	West End Tailings Ponds To Twomile Creek	Bioengineering Actions	Off-Channel Hydrologic Feature Average Cost	85,000	SY	\$37	\$3,100,000	\$1,900,000	\$550,000	\$5,500,000
MG01-8	West End Tailings Ponds To Twomile Creek	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	13,000	SF	\$1.18	\$16,000	\$9,500	\$2,800	\$28,000
MG01-8	West End Tailings Ponds To Twomile Creek	Bioengineering Actions	Current Deflector Sediment Traps	2	EA	\$1,700	\$3,500	\$2,100	\$20,000	\$26,000
MG01-8	West End Tailings Ponds To Twomile Creek	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	2,300	LF	\$45	\$110,000	\$64,000	\$32,000	\$200,000
MG01-8	West End Tailings Ponds To Twomile Creek	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	2,300	LF	\$100	\$250,000	\$150,000	\$74,000	\$470,000
MG01-8	West End Tailings Ponds To Twomile Creek	Bioengineering Actions	Channel Realignment	31,000	SY	\$37	\$1,100,000	\$690,000	\$200,000	\$2,000,000
MG01-9	Twomile Creek To W.f. Rosebud Creek	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	230,000	SF	\$1.18	\$270,000	\$160,000	\$47,000	\$480,000
MG01-9	Twomile Creek To W.f. Rosebud Creek	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	560	LF	\$45	\$25,000	\$15,000	\$7,600	\$48,000
MG01-9	Twomile Creek To W.f. Rosebud Creek	Bioengineering Actions	Current Deflector Sediment Traps	1	EA	\$1,700	\$1,700	\$1,000	\$10,000	\$13,000
MG01-9	Twomile Creek To W.f. Rosebud Creek	Bioengineering Actions	Channel Realignment	7,400	SY	\$37	\$270,000	\$160,000	\$48,000	\$480,000
MG01-9	Twomile Creek To W.f. Rosebud Creek	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	560	LF	\$100	\$58,000	\$35,000	\$17,000	\$110,000
MG01-9	Twomile Creek To W.f. Rosebud Creek	Bioengineering Actions	Current Deflector Average Cost	5	EA	\$1,700	\$8,700	\$5,200	\$2,600	\$17,000
MG02-10	Bear Creek Confluence To Mcphee Gulch Confluence	Bioengineering Actions	Current Deflector Average Cost	11	EA	\$1,700	\$19,000	\$11,000	\$5,700	\$36,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
MG02-10	Bear Creek Confluence To Mcphee Gulch Confluence	Bioengineering Actions	Current Deflector Sediment Traps	1	EA	\$1,700	\$1,700	\$1,000	\$10,000	\$13,000
MG02-10	Bear Creek Confluence To Mcphee Gulch Confluence	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	62	LF	\$100	\$6,500	\$3,900	\$1,900	\$12,000
MG02-10	Bear Creek Confluence To Mcphee Gulch Confluence	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	120	LF	\$45	\$5,600	\$3,400	\$1,700	\$11,000
MG02-11	Mcphee Gulch To Unnamed Tributary Approx. 50ft From	Bioengineering Actions	Current Deflector Sediment Traps	1	EA	\$1,700	\$1,700	\$1,000	\$10,000	\$13,000
MG02-11	Mcphee Gulch To Unnamed Tributary Approx. 50ft From	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	55	LF	\$100	\$5,700	\$3,400	\$1,700	\$11,000
MG02-11	Mcphee Gulch To Unnamed Tributary Approx. 50ft From	Bioengineering Actions	Current Deflector Average Cost	4	EA	\$1,700	\$7,000	\$4,200	\$2,100	\$13,000
MG02-11	Mcphee Gulch To Unnamed Tributary Approx. 50ft From	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	110	LF	\$45	\$5,000	\$3,000	\$1,500	\$9,400
MG02-12	Unnamed Tributary 50ft From Confluence To North Fork	Bioengineering Actions	Vegetative Bank Stabilization - Average Cost	7.7	LF	\$45	\$350	\$210	\$110	\$670
MG02-12	Unnamed Tributary 50ft From Confluence To North Fork	Bioengineering Actions	Bank Stabilization via Revetments - Average Cost	15	LF	\$100	\$1,600	\$940	\$470	\$3,000
MG02-12	Unnamed Tributary 50ft From Confluence To North Fork	Bioengineering Actions	Current Deflector Average Cost	1	EA	\$1,700	\$1,700	\$1,000	\$520	\$3,300
MG02-12	Unnamed Tributary 50ft From Confluence To North Fork	Bioengineering Actions	Floodplain and Riparian Replanting - Average Cost	1,500	SF	\$1.18	\$1,800	\$1,100	\$320	\$3,200
MUL085	Vienna International Mine	Upland Waste Rock	Low Perm Cap w/Seepage Coll & Trmt	0.37	AC	\$210,000	\$79,000	\$48,000	\$18,000	\$140,000
MUL085	Vienna International Mine	Upland Waste Rock	Excavation	200	CY	\$3.40	\$680	\$410	\$0	\$1,100
MUL086	Wibberding-golden Slipper Mines	Upland Waste Rock	Excavation	6,000	CY	\$3.40	\$20,000	\$12,000	\$0	\$33,000
MUL086	Wibberding-golden Slipper Mines	Upland Waste Rock	Low Permeability Cap	1.3	AC	\$190,000	\$240,000	\$140,000	\$30,000	\$410,000
OSB025	Capitol Silver-lead: No. 3	Upland Waste Rock	Low Permeability Cap	0.50	AC	\$190,000	\$95,000	\$57,000	\$12,000	\$160,000
OSB025	Capitol Silver-lead: No. 3	Upland Waste Rock	Excavation	2,400	CY	\$3.40	\$8,200	\$4,900	\$0	\$13,000
OSB030	Silverton Prospect Upper Adit	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
OSB030	Silverton Prospect Upper Adit	Upland Waste Rock	Low Permeability Cap	0.45	AC	\$190,000	\$86,000	\$51,000	\$11,000	\$150,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
OSB065	Sf Cda River Impacted Floodplain: No. 3	Floodplain Sediments	Regional Repository	430,000	CY	\$11	\$4,800,000	\$2,900,000	\$950,000	\$8,600,000
OSB065	Sf Cda River Impacted Floodplain: No. 3	Floodplain Sediments	Sediment Excavation	430,000	CY	\$13	\$5,500,000	\$3,300,000	\$0	\$8,700,000
OSB065	Sf Cda River Impacted Floodplain: No. 3	Groundwater	Media Filter Treatment Plant	1,100	GPM	\$1,500	\$1,700,000	\$1,300,000	\$3,400,000	\$6,400,000
OSB065	Sf Cda River Impacted Floodplain: No. 3	Floodplain Sediments	Hydraulic Isolation Using Slurry Wall	22,000	LF	\$350	\$7,800,000	\$4,700,000	\$3,100,000	\$16,000,000
OSB070	Silverore-inspiration Mine	Upland Waste Rock	Low Permeability Cap	1.3	AC	\$190,000	\$250,000	\$150,000	\$31,000	\$430,000
OSB070	Silverore-inspiration Mine	Upland Waste Rock	Excavation	6,200	CY	\$3.40	\$21,000	\$13,000	\$0	\$34,000
OSB072	Western Union Upper Adit	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
OSB072	Western Union Upper Adit	Upland Waste Rock	Low Permeability Cap	0.23	AC	\$190,000	\$44,000	\$26,000	\$5,500	\$75,000
OSB073	Silverton Prospect Lower Adit	Upland Waste Rock	Low Permeability Cap	0.58	AC	\$190,000	\$110,000	\$66,000	\$14,000	\$190,000
OSB073	Silverton Prospect Lower Adit	Upland Waste Rock	Excavation	4,400	CY	\$3.40	\$15,000	\$9,000	\$0	\$24,000
OSB074	St. Joe No.1	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
OSB074	St. Joe No.1	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
OSB075	Unnamed Adit	Upland Waste Rock	Low Permeability Cap	0.28	AC	\$190,000	\$53,000	\$32,000	\$6,700	\$92,000
OSB075	Unnamed Adit	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
OSB076	Unnamed Adit (may Claim)	Upland Waste Rock	Low Permeability Cap	0.20	AC	\$190,000	\$38,000	\$23,000	\$4,800	\$66,000
OSB076	Unnamed Adit (may Claim)	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
OSB078	Unnamed Adit (hardscrabble Claim)	Upland Waste Rock	Low Permeability Cap	0.080	AC	\$190,000	\$15,000	\$9,100	\$1,900	\$26,000
OSB078	Unnamed Adit (hardscrabble Claim)	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
OSB117	Osburn Zanetti Stockpiled Tailings	Floodplain Tailings	Excavation	14,000	CY	\$3.40	\$48,000	\$29,000	\$0	\$76,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
OSB117	Osburn Zanetti Stockpiled Tailings	Floodplain Tailings	Local Repository Above Flood Level	14,000	CY	\$12	\$170,000	\$100,000	\$38,000	\$310,000
OSB118	Osburn North Tailings Area	Floodplain Sediments	Sediment Excavation	60,000	CY	\$13	\$760,000	\$450,000	\$0	\$1,200,000
OSB118	Osburn North Tailings Area	Floodplain Sediments	Regional Repository	60,000	CY	\$11	\$660,000	\$390,000	\$130,000	\$1,200,000
OSB119	Osburn Zanetti Gravel Operation	Floodplain Sediments	Hydraulic Isolation Using Slurry Wall	7,000	LF	\$350	\$2,500,000	\$1,500,000	\$990,000	\$4,900,000
OSB119	Osburn Zanetti Gravel Operation	Groundwater	Media Filter Treatment Plant	45	GPM	\$1,500	\$67,000	\$50,000	\$130,000	\$250,000
OSB120	Sf Cda River Impacted Floodplain: No. 4	Floodplain Sediments	Sediment Excavation	290,000	CY	\$13	\$3,600,000	\$2,200,000	\$0	\$5,800,000
OSB120	Sf Cda River Impacted Floodplain: No. 4	Floodplain Sediments	Hydraulic Isolation Using Slurry Wall	14,000	LF	\$350	\$4,900,000	\$3,000,000	\$2,000,000	\$9,900,000
OSB120	Sf Cda River Impacted Floodplain: No. 4	Groundwater	Media Filter Treatment Plant	730 GPM \$1,500		\$1,100,000	\$820,000	\$2,200,000	\$4,100,000	
OSB120	Sf Cda River Impacted Floodplain: No. 4	Floodplain Sediments	Regional Repository	290,000	CY	\$11	\$3,200,000	\$1,900,000	\$630,000	\$5,700,000
PIPEMG01	Pipeline To Active Treatment	General	Conveyance Pipeline-24"	53,000	LF	\$120	\$6,200,000	\$3,700,000	\$470,000	\$10,000,000
PIPEMG02	Pipeline To Active Treatment	General	Conveyance Pipeline-24"	35,000	LF	\$120	\$4,200,000	\$2,500,000	\$310,000	\$7,000,000
POL018	Merger Mine	Upland Waste Rock	Low Permeability Cap	0.91	AC	\$190,000	\$170,000	\$100,000	\$22,000	\$300,000
POL018	Merger Mine	Upland Waste Rock	Excavation	4,400	CY	\$3.40	\$15,000	\$9,000	\$0	\$24,000
POL019	Coeur D Alene Mine	Upland Waste Rock	Low Permeability Cap w/Erosion Prot'n	7.5	AC	\$210,000	\$1,600,000	\$960,000	\$360,000	\$2,900,000
POL021	Eclipse Mine	Upland Waste Rock	Low Permeability Cap	0.66	AC	\$190,000	\$130,000	\$75,000	\$16,000	\$220,000
POL021	Eclipse Mine	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
POL064	Unnamed Adit	Upland Waste Rock	Low Permeability Cap	0.20	AC	\$190,000	\$38,000	\$23,000	\$4,800	\$66,000
POL064	Unnamed Adit	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
RHAULMG01	Hauling To Regional Repository	General	Haul to Regional Repository	2,400,000	CY-MI	\$1.12	\$2,700,000	\$1,600,000	\$0	\$4,300,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
RHAULMG02	Hauling To Regional Repository	General	Haul to Regional Repository	3,200,000	CY-MI	\$1.12	\$3,600,000	\$2,100,000	\$0	\$5,700,000
WAL001	Osburn Tailings Ponds	Groundwater	Media Filter Treatment Plant	90	GPM	\$1,500	\$130,000	\$100,000	\$270,000	\$500,000
WAL001	Osburn Tailings Ponds	Upland Tailings	Hydraulic Isolation Using Slurry Wall	1	LF	\$350	\$350	\$210	\$140	\$710
WAL001	Osburn Tailings Ponds	Floodplain Sediments	Hydraulic Isolation Using Slurry Wall	8,400	LF	\$350	\$3,000,000	\$1,800,000	\$1,200,000	\$5,900,000
WAL002	Western Union Lower Adit	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
WAL002	Western Union Lower Adit	Floodplain Waste Rock	Low Permeability Cap	0.87	AC	\$190,000	\$170,000	\$99,000	\$21,000	\$290,000
WAL002	Western Union Lower Adit	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000
WAL002	Western Union Lower Adit	Floodplain Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
WAL004	Sf Cda River Railroad Yards & Imp Fldp	Floodplain Sediments	Regional Repository	110,000	CY	\$11	\$1,200,000	\$720,000	\$240,000	\$2,100,000
WAL004	Sf Cda River Railroad Yards & Imp Fldp	Groundwater	Media Filter Treatment Plant	440	GPM	\$1,500	\$660,000	\$500,000	\$1,300,000	\$2,500,000
WAL004	Sf Cda River Railroad Yards & Imp Fldp	Floodplain Sediments	Sediment Excavation	110,000	CY	\$13	\$1,400,000	\$820,000	\$0	\$2,200,000
WAL004	Sf Cda River Railroad Yards & Imp Fldp	Floodplain Sediments	Hydraulic Isolation Using Slurry Wall	8,500	LF	\$350	\$3,000,000	\$1,800,000	\$1,200,000	\$6,000,000
WAL014	St. Elmo Mine	Upland Waste Rock	Low Permeability Cap	1.6	AC	\$190,000	\$310,000	\$180,000	\$38,000	\$530,000
WAL014	St. Elmo Mine	Upland Waste Rock	Excavation	7,800	CY	\$3.40	\$27,000	\$16,000	\$0	\$42,000
WAL016	Argentine Mine	Upland Waste Rock	Local Repository Above Flood Level	200	CY	\$12	\$2,400	\$1,500	\$550	\$4,500
WAL016	Argentine Mine	Upland Waste Rock	Excavation	200	CY	\$3.40	\$680	\$410	\$0	\$1,100
WAL020	Caladay Mine	Upland Waste Rock	Excavation	70,000	CY	\$3.40	\$240,000	\$140,000	\$0	\$380,000
WAL020	Caladay Mine	Adit Drainage	Permeable Reactive Trench	10	CY	\$550	\$5,500	\$3,300	\$33,000	\$42,000
WAL020	Caladay Mine	Adit Drainage	Adit Drainage Collection	1	LS	\$7,800	\$7,800	\$4,700	\$1,400	\$14,000

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
WAL020	Caladay Mine	Upland Waste Rock	Low Permeability Cap		AC	\$190,000	\$1,100,000	\$660,000	\$140,000	\$1,900,000
WAL024	War Eagle Mine	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
WAL024	War Eagle Mine	Upland Waste Rock	Low Permeability Cap	0.43	AC	\$190,000	\$82,000	\$49,000	\$10,000	\$140,000
WAL034	Shields Gulch Impacted Riparian	Floodplain Sediments	Sediment Excavation	39,000	CY	\$13	\$490,000	\$290,000	\$0	\$790,000
WAL034	Shields Gulch Impacted Riparian	Floodplain Sediments	Regional Repository	39,000	CY	\$11	\$430,000	\$260,000	\$86,000	\$770,000
WAL035	Osburn Rockpit Along I-90: No. 2	Floodplain Waste Rock	Excavation	28,000	CY	\$3.40	\$95,000	\$57,000	\$0	\$150,000
WAL035	Osburn Rockpit Along I-90: No. 2	Floodplain Waste Rock	Low Permeability Cap	5.9	AC	\$190,000	\$1,100,000	\$670,000	\$140,000	\$1,900,000
WAL036	Lake Ck Impacted Riparian	Floodplain Sediments	Local Repository Above Flood Level	23,000	CY	\$12	\$270,000	\$160,000	\$62,000	\$500,000
WAL036	Lake Ck Impacted Riparian	Floodplain Sediments	Sediment Excavation	23,000	CY	\$13	\$280,000	\$170,000	\$0	\$450,000
WAL037	Hercules Millsite	Upland Tailings	Local Repository Above Flood Level	12,000	CY	\$12	\$150,000	\$88,000	\$33,000	\$270,000
WAL037	Hercules Millsite	Upland Tailings	Excavation	12,000	CY	\$3.40	\$41,000	\$24,000	\$0	\$65,000
WAL046	Day Mines Claims	Upland Waste Rock	Low Permeability Cap	0.26	AC	\$190,000	\$49,000	\$30,000	\$6,200	\$85,000
WAL046	Day Mines Claims	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
WAL055	Unnamed Adit	Upland Waste Rock	Low Permeability Cap	0.17	AC	\$190,000	\$32,000	\$19,000	\$4,000	\$56,000
WAL055	Unnamed Adit	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
WAL056	Peerless Group (osceola)	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
WAL056	Peerless Group (osceola)	Upland Waste Rock	Low Permeability Cap	0.24	AC	\$190,000	\$46,000	\$27,000	\$5,700	\$79,000
WAL057	Peerless Group	Upland Waste Rock	Low Permeability Cap	0.100	AC	\$190,000	\$19,000	\$11,000	\$2,400	\$33,000
WAL057	Peerless Group	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220

Source ID	Site Name	Waste Type	Description	Quantity	Unit	Escalated Unit Direct Capital Cost	Escalated Direct Capital Cost	Escalated Indirect Capital Cost	Escalated O&M Cost	Escalated Total Cost
WAL058	Unnamed Adit	Upland Waste Rock	Low Permeability Cap	0.090	AC	\$190,000	\$17,000	\$10,000	\$2,100	\$30,000
WAL058	Unnamed Adit	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
WAL062	Unnamed Adit	Upland Waste Rock	Low Permeability Cap	0.19	AC	\$190,000	\$36,000	\$22,000	\$4,500	\$62,000
WAL062	Unnamed Adit	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
WAL064	Unnamed Adit	Upland Waste Rock	Low Permeability Cap	0.35	AC	\$190,000	\$67,000	\$40,000	\$8,300	\$110,000
WAL064	Unnamed Adit	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
WAL072	Unnamed Adit	Upland Waste Rock	Low Permeability Cap	0.080	AC	\$190,000	\$15,000	\$9,100	\$1,900	\$26,000
WAL072	Unnamed Adit	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
WAL073	Unnamed Adit	Upland Waste Rock	Excavation	40	CY	\$3.40	\$140	\$82	\$0	\$220
WAL073	Unnamed Adit	Upland Waste Rock	Low Permeability Cap	0.100	AC	\$190,000	\$19,000	\$11,000	\$2,400	\$33,000
	1	1		Totals for South	Fork V	Vatershed	\$130,000,000	\$79,000,000	\$31,000,000	\$240,000,000

Table 15. Estimated Costs for the Spokane River Page 1 of 2

Description	Unit	Quantity	Unit Cost (2000)	Escalated Unit Cost (2006)	Escalated Direct Capital Cost	Escalated Indirect Capital Cost ^a	Escalated O&M Cost (30 Yr. Present Worth)	Escalated Total Cost
LOWER RANGE ESTIMATE								
Shoreline Sites								
Access restrictions (gates)	ea	2	\$2,000	\$2,520	\$5,040	\$3,024	\$2,520	\$10,584
Granular cap	ac	3.5	\$58,080	\$73,181	\$256,133	\$153,680	\$38,420	\$448,232
Excavate	су	8,380	\$2.70	\$3.40	\$28,509	\$17,106	\$0	\$45,615
Backfill	су	8,380	\$18.00	\$22.68	\$190,058	\$114,035	\$0	\$304,093
Consolidate/cap on site	ac	2	\$28,575	\$36,005	\$72,009	\$43,205	\$10,801	\$126,015
Disposal (Subtitle D)	су	1,980	\$36.40	\$45.86	\$90,811	\$0	\$0	\$90,811
Haul to landfill	cy-mi	59,400	\$0.63	\$0.79	\$47,152	\$28,067	\$0	\$75,218
Revegetation	ac	1	\$41,000	\$51,660	\$51,660	\$30,996	\$0	\$82,656
Bank stabilization	lf	400	\$36.41	\$45.88	\$18,351	\$11,010	\$5,505	\$34,865
Upriver Dam								
Granular sediment cap	ac	17	\$82,280.00	\$103,673	\$1,762,438	\$1,057,463	\$528,731	\$3,348,631
Monitoring								
Beach monitoring	ls	1	\$0	\$0	\$0	\$0	\$529,200	\$529,200
Surface water monitoring	ls	1	\$0	\$0	\$0	\$0	\$592,200	\$592,200
TOTAL LOWER RANGE COST					\$2,500,000	\$1,500,000	\$1,700,000	\$5,700,000

Table 15. Estimated Costs for the Spokane River Page 2 of 2

			Unit Cost	Escalated Unit Cost	Escalated Direct	Escalated Indirect	Escalated O&M Cost (30 Yr. Present	Escalated
Description	Unit	Quantity	(2000)	(2006)	Capital Cost	Capital Cost ^a	Worth)	Total Cost
UPPER RANGE ESTIMATE								
Shoreline Sites								
Excavate	cy	28,000	\$2.70	\$3.40	\$95,256	\$57,154	\$0	\$152,410
Backfill	cy	28,000	\$18.00	\$22.68	\$635,040	\$381,024	\$0	\$1,016,064
Disposal (Subtitle D)	су	28,000	\$36.40	\$45.86	\$1,284,192	\$0	\$0	\$1,284,192
Haul to landfill	cy-mi	840,000	\$0.63	\$0.79	\$666,792	\$396,900	\$0	\$1,063,692
Revegetation	ac	2	\$41,000	\$51,660	\$103,320	\$61,992	\$0	\$165,312
Beach monitoring	ls	1	\$0	\$0	\$0	\$0	\$529,200	\$529,200
Surface water monitoring	ls	1	\$0	\$0	\$0	\$0	\$592,200	\$592,200
Upriver Dam								
Hydraulic dredge/pipeline/dewater	су	82,000	\$6.59	\$8.30	\$680,879	\$408,527	\$0	\$1,089,406
Disposal (Subtitle D)	cy	82,000	\$36.40	\$45.86	\$3,760,848	\$0	\$0	\$3,760,848
Haul to landfill	cy-mi	2,460,000	\$0.63	\$0.79	\$1,952,748	\$1,162,350	\$0	\$3,115,098
Monitoring	ls	1	\$0.00	\$0	\$0	\$0	\$504,000	\$504,000
TOTAL UPPER RANGE COST ESTIMATE ^b					\$9,200,000	\$2,500,000	\$1,600,000	\$13,300,000

^aAssumed at 60% of direct capital cost. No indirect costs assumed for disposal fee.

Notes:

ac - acre

cy - cubic yard

cy-mi - cubic yard-mile

lf - linear foot

ls - lump sum

O&M - operation and maintenance

^bTotal costs rounded to two significant figures.

Estimated Cleanup Costs for the Coeur d'Alene Basin Costs Escalated to December 2006 and Pine Creek Costs Excluded June 8, 2007

Table 16. Description of Non-Construction Capital Costs

		Cost as a Percentage of Direct Capital (Construction) Cost			
Cost Component	Elements	Direct Capital Cost >\$10,000,000	Direct Capital Cost <\$100,000		
Project Management	Planning	5%	10%		
	Community relations				
	Bid/contract administration				
	Cost and performance reporting				
	Permitting				
	Legal				
	Construction complete report				
Remedial Design	Field data collection and analysis	6%	20%		
<u> </u>	Design survey				
	Treatability studies				
	Preliminary, intermediate, and final design				
Construction Management	Submittal review	6%	15%		
G	Change order review				
	Design modifications				
	Construction observation				
	Construction survey				
	Construction schedule tracking				
	QA/QC documentation				
	O&M manual				
	Record drawings				

Source: EPA 2000. A Guide to Developing and Documenting Cost Estimates During the Feasibility Study. EPA Document No. 540-R-00-002. Prepared by the U.S. Army Corps of Engineers and the EPA Office of Emergency and Remedial Response. July.